

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

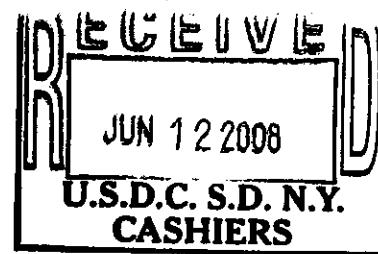
KONINKLIJKE PHILIPS ELECTRONICS
N.V. and U.S. PHILIPS CORPORATION,

Plaintiffs,

v.

OPTICAL EXPERTS
MANUFACTURING, INC.; BRILLIANCE
AUDIO, INC.; CADMUS
COMMUNICATIONS CORPORATION;
RAYMOND BERNARD ZERRUSEN, an
individual; CLIFFORD STEVEN BOYD,
an individual; and John Does No. 1 through
100,

Defendants.



Civil Action No. 08-cv-4071 (KMK)

FIRST AMENDED COMPLAINT

Plaintiffs Koninklijke Philips Electronics N.V. and U.S. Philips Corporation allege as follows based upon knowledge as to their own acts, and upon information and belief as to all other allegations:

1. This is an action for breach of contract under the laws of the State of New York and, in the alternative, patent infringement under 35 U.S.C. 271 *et seq.*

The Parties

2. Plaintiff Koninklijke Philips Electronics N.V. is a corporation organized under the laws of The Netherlands with its principal place of business in Amsterdam, the Netherlands. Plaintiff U.S. Philips Corporation is a corporation organized under the laws of Delaware with its principal place of business at 3000 Minuteman Road, M/S 109, Andover, MA 01810, and an office at 345 Scarborough Rd., Briarcliff Manor, New York. Plaintiffs Koninklijke Philips Electronics N.V. and U.S. Philips Corporation are collectively referred to as "Philips."

3. Defendant Optical Experts Manufacturing, Inc. (“OEM”) is a corporation organized under the laws of North Carolina with a principal place of business at 8500 South Tryon Street, Charlotte, NC.

4. Defendant Brilliance Audio, Inc. (“Brilliance”) is a corporation with a place of business at 1704 Eaton Drive, Grand Haven, MI 49417.

5. Defendant Cadmus Communications Corporation (“Cadmus”) is a corporation with a principal place of business at 1700 Diagonal Rd. Suite 320, Alexandria, Virginia 22314-2840.

6. Defendant Raymond Bernard Zerrusen (“Zerrusen”) is an individual residing at 13907 Grand Palisades Pkwy, Charlotte, NC 28278. Zerrusen is the Owner and President of OEM.

7. Defendant Clifford Steven Boyd (“Boyd”) is an individual residing at 2527 Winterbrooke Dr., Matthews, NC 28105. Boyd is the Chief Operating Officer and Executive Vice President of OEM.

8. Defendants John Doe No. 1 through John Doe No. 100 inclusive are or may be OEM-related entities or OEM customers, the identities of which are unknown at this time.

Jurisdiction and Venue

9. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1332, 1338(a), and 1367(a), and 35 U.S.C. §§ 271 and 281.

10. The amount in controversy exceeds the sum or value of \$75,000, exclusive of interest and costs.

11. Venue in this Court is proper under 28 U.S.C. §§ 1391(b) and (c) and 1400(b).

12. This Court has personal jurisdiction over OEM, Brilliance, Cadmus, Zerrusen, and Boyd under the New York Long Arm Statute, N.Y. C.P.L.R. 301, 302, 317 (McKinney 2007) and Fed. R. Civ. P. 4(e)(1).

13. OEM has committed acts of patent infringement in this judicial district.
14. Brilliance has committed acts of patent infringement in this judicial district.
15. Cadmus has committed acts of patent infringement in this judicial district.
16. Zerrusen is actively involved in the control and management of OEM.
17. Zerrusen has committed acts of patent infringement in this judicial district, including but not limited to directing and controlling patent infringement by OEM.
18. Boyd is actively involved in the control and management of OEM.
19. Boyd has committed acts of patent infringement in this judicial district, including but not limited to directing and controlling patent infringement by OEM.
20. OEM has irrevocably waived any objections to the jurisdiction, process, and venue of this Court, and to the effectiveness, execution, and enforcement of any order or judgment (including a default judgment) with respect to the Agreement and Side Letter identified in ¶ 30 of this Complaint.
21. OEM, Brilliance, Cadmus, Zerrusen, and Boyd are subject to personal jurisdiction in this district because they purposefully engaged in activities that gave rise to this claim for patent infringement, which were directed at residents of New York and this judicial district.
22. OEM, Brilliance, Cadmus, Zerrusen, and Boyd voluntarily placed unlicensed CD-Discs (as defined in ¶ 31) into the stream of U.S. commerce, conscious that New York and this judicial district were the likely destination of a substantial quantity of those unlicensed CD-Discs.

Facts Related to Philips

23. Philips and its related companies have engaged for many years in research and development (“R&D”) of systems in which signals encoded in digital form and stored on a disc are read and reproduced by means of devices using an optical read-out beam.

24. One of the achievements of such R&D efforts was a revolutionary high-fidelity sound storage and reproduction system, known as the Compact Disc Digital Audio System (“CD-Audio System”).

25. Philips and Sony Corporation (“Sony”) developed the Compact Disc Data System (“CD-ROM System”) from the CD-Audio System.

26. Philips and Sony also developed a multi-session CD system, known as the Enhanced Music Compact Disc System (“Enhanced Music CD System” or “CD Extra System”).

27. The CD-Audio System, CD-ROM System, and CD Extra System are referred to collectively in this Complaint as the “CD Systems”.

28. U.S. Philips Corporation is the owner by assignment of all right, title, and interest in U.S. Patent No. 5,068,846, entitled “Reflective, Optical Record Carrier,” relating to the CD Systems (“the ‘846 patent”). The ‘846 patent was duly and legally issued by the U.S. Patent and Trademark Office on November 26, 1991, after full and fair examination, and is valid and subsisting in the United States. A true copy of the ‘846 patent is attached as **Exhibit A**.

29. The CD Systems are defined by “Standard Specifications”, namely, the CD-Audio Standard Specifications, CD-Audio Maxi-Single Standard Specifications, CD-ROM Standard Specifications, CD-ROM-XA Specifications, and the Enhanced Music CD Standard Specifications.

Facts Related to OEM

30. Effective July 1, 2002, Philips and OEM entered into a “CD Disc Patent License Agreement” whereby Philips granted OEM worldwide rights under certain patents related to CD Systems, including for the territory of the United States, its territories, and possessions (the

“Agreement”) (**Exhibit B**). Effective July 1, 2002, Philips and OEM entered into a “Side Letter” that constitutes a legally binding and integral part of the Agreement (**Exhibit C**).

31. The Agreement identifies the Standard Specifications for CD System discs, specifically, “CD-Audio Discs”, “CD-Audio Maxi-Singles”, “CD-ROM Discs”, “CD-ROM Disc mode 1”, “CD-ROM Disc mode 2”, “CD-ROM XA Disc sub-mode 1”, “CD-ROM XA Disc sub-mode 2”, “CD Extra Discs”, “CD Extra Discs sub-mode 1”, and “CD Extra Discs sub-mode 2”. Such CD System discs are referred to collectively in this Complaint as “CD-Discs”.

32. Paragraph 1.23 of the Agreement defines “Licensed Patents” as “any one or more of the essential patents for the manufacture and/or sale of the various types of CD-Discs”, breaks out such patents into Categories I through III, and incorporates the specific patents listed in Annexes A1 through A8. Under ¶ 1.23 of the Agreement, Licensed Patents identified in Annex A1 cover all CD-Discs, in Categories I through III.

33. The ‘846 patent was listed in Annex A1 when OEM signed the Agreement and is currently listed in Annex A1, and therefore is a Licensed Patent applicable to all CD-Discs manufactured and/or sold by OEM under the Agreement.

34. Under ¶ 1.23 of the Agreement, Philips and OEM agreed that Philips would commission an independent expert to review the patents listed in Annexes A1 through A8 to confirm that each patent is “essential” to the manufacture and sale of CD-Discs made according to the Standard Specifications. Philips did so.

35. Under ¶ 1.23 of the Agreement, the term “essential” as used in relation to Licensed Patents means “patents, the use of which is necessary (either directly or as a practical matter) for compliance with the Standard Specifications defining the relevant CD System(s).”

36. The independent expert commissioned by Philips determined that the '846 patent is an essential patent and is properly listed in Annex A1 of the Agreement.

37. Paragraph 1.22 of the Agreement defines "Licensed Product(s)" by eleven "Options", Option A through K, "as selected by Licensee, manufactured and/or sold in accordance with the provisions hereof, which are duly reported and on which the royalties due hereunder are paid in accordance with the provisions of this Agreement." Each Option corresponds to a different type of CD-Disc defined in ¶¶ 1.2 through 1.11 of the Agreement, made in compliance with the Standard Specifications for each type of CD-Disc defined in ¶¶ 1.12 through 1.16 of the Agreement. For example, Option A is "CD-Audio Discs and/or CD-Audio Maxi Singles" defined in ¶¶ 1.2 and 1.3, respectively, made in compliance with the ¶¶ 1.12 and 1.13 Standard Specifications, and Option C is "CD-ROM Discs mode 1" defined in ¶ 1.5, made in compliance with the ¶ 1.14 Standard Specifications.

38. OEM selected all Licensed Products, namely, Options A through K.

39. Under ¶ 2.1 of the Agreement, Philips granted to OEM "a non-exclusive, non-transferable license under the Licensed Patents" (listed in the Annexes corresponding to the Options selected by OEM) "to manufacture Licensed Products" corresponding to Options A-K (as selected by OEM), "in accordance with the . . . Standard Specifications" set forth in ¶¶ 1.12 through 1.16 of the Agreement, within the United States and its territories and possessions, "and to sell or otherwise dispose of such Licensed Products so manufactured in all countries of the world."

40. Under ¶ 5.2 of the Agreement, OEM promised to "pay to Philips a royalty for each CD-Disc sold or otherwise disposed of by Licensee, any of Licensee's Associated Companies [as

defined in ¶ 1.24] or an agent of Licensee, in any country where at least one of the Licensed Patents essential to the type(s) of CD-Discs as selected by Licensee . . . exists.”

41. The ‘846 patent exists in the United States, and has existed at all times relevant to this action.

42. With respect to the royalty required by the Agreement, OEM agreed to pay Philips the “Standard Rate” of 3 cents (3¢) per relevant CD-Disc covered by this Complaint, as defined in ¶ 5.2 of the Agreement.

43. With respect to CD-Discs sold on or after July 1, 2002, Philips permitted OEM to pay the “Compliance Rate” of 1.75 cents (1.75¢) per relevant CD-Disc covered by this Complaint, also as defined in ¶ 5.2 of the Agreement, provided that OEM meets the “Compliance Requirements” specified in the Agreement and Side Letter.

44. Paragraph 5.2 of the Agreement further provides that “[i]n the event that Licensee fails to comply at any time with any of its obligations under this Agreement, the Standard Rates, as applicable, shall apply to Licensee’s manufacture and sale of CD-Discs instead of the Compliance Rates, as applicable, with immediate effect from the first day of the reporting period to which the occurrence of non-compliance relates until such moment that Philips confirms in writing to Licensee that Licensee’s non-compliance has been remedied in full.”

45. Paragraphs 5.3 and 5.10 of the Agreement require OEM to submit quarterly “Royalty Reporting Forms” to Philips listing all CD-Discs that it manufactures and sells, and to keep complete and accurate books and records relating to OEM’s manufacture and sale or other disposal of CD-Discs.

46. On December 8, 2003, Philips and OEM entered into a “Second Workout Agreement” relating in part to the Agreement (**Exhibit D**). The Second Workout Agreement reflects the facts

that OEM failed to make certain royalty payments under the Agreement, failed to pay certain arrearages under a February 28, 2002 Workout Agreement, asked Philips to forbear its remedies under the Agreement and to restructure payment for the unpaid royalties due and owing by OEM to Philips, and Philips and OEM so agreed. Under the Second Workout Agreement, OEM agreed to make monthly payments to Philips through December 2008. Such payments are due no later than the 15th day of each month. The Second Workout Agreement provides that if OEM fails to make timely payments under such agreement or the Agreement, or fails to provide timely royalty reports under the Agreement, and fails to cure as provided in the Second Workout Agreement, (1) the entire remaining unpaid balance under the Second Workout Agreement shall immediately become due and payable, (2) Philips shall be entitled to injunctive relief and/or confession of judgment for such unpaid balance, and (3) Philips shall be entitled to an award of its reasonable attorneys' fees and costs for enforcement of the Second Workout Agreement.

47. On December 1, 2006, Philips and OEM entered into a "2006 Payment Agreement" relating in part to the Agreement (**Exhibit E**). The 2006 Payment Agreement reflects the facts that OEM failed to disclose all applicable discs purchased, manufactured, or sold for a certain period and failed to make certain payments, asked Philips to forbear its remedies under the Agreement and to restructure OEM's payments, and Philips and OEM so agreed. Under the 2006 Payment Agreement, OEM agreed to pay interest on unpaid amounts due under such agreement, and OEM agreed to make monthly payments to Philips through December 2009. Such payments are due no later than the 15th day of each month. The 2006 Payment Agreement provides that if OEM fails to make timely payments under such agreement or the Agreement, or fails to provide timely royalty reports under the Agreement, and fails to cure as provided in the 2006 Payment Agreement, (1) the entire remaining unpaid balance under the 2006 Payment

Agreement shall immediately become due and payable, (2) Philips shall be entitled to injunctive relief and/or confession of judgment for such unpaid balance, and (3) Philips shall be entitled to an award of its reasonable attorneys' fees and costs for enforcement of the 2006 Payment Agreement.

Facts Relating to Breach of Contract Claim

48. OEM selected Licensed Product Options A-K. To be Licensed Products, selected CD-Discs must be manufactured and sold in compliance with the corresponding Standard Specifications and the provisions of the Agreement, such sales must be reported to Philips, and royalties for the sale of such CD-Discs must be paid to Philips. For example, a CD-Audio Disc is defined by ¶ 1.2 of the Agreement to "mean a Disc [as defined in ¶ 1.1 of the Agreement] comprising audio information encoded in digital form, which is optically readable by a CD-Audio Player [as defined in ¶ 1.18 of the Agreement] and which conforms to the CD-Audio Standard Specifications [as defined in ¶ 1.12 of the Agreement]." Paragraph 1.12 defines the CD-Audio Standard Specifications to "mean the specifications for the CD-Audio System [as defined in the second "Whereas" clause of the Agreement], including, if applicable, the Subcode/Control and Display System, Channels R . .W, chapter 5.8, the CD-TEXT mode, as made available, modified or extended from time to time."

49. Under ¶ 2.1 of the Agreement, OEM is licensed only to manufacture selected Licensed Products "**in accordance with the relevant CD Standard Specifications** and to sell or otherwise dispose of such Licensed Products **so manufactured** in all countries of the world." (Emphasis added.)

50. Because the '846 patent exists in the United States, under ¶ 5.2 of the Agreement, OEM must pay Philips either the Standard Rates or the Compliance Rates "for each CD-Disc sold or otherwise disposed of" by OEM, its associated companies, or its agents in the U.S.

51. Beginning in or about the 3rd Quarter 2002, OEM began paying royalties under the Agreement according to the Compliance Rates, for the manufacture and sale of relevant CD-Discs (1.75 cents (1.75¢) per disc) in the United States.

52. Beginning in or about December 1, 2005, OEM ceased paying royalties for all CD-Discs made and sold in the U.S.

53. After the 4th Quarter of 2005, OEM has continued to make and sell the following CD-Discs in the U.S., without providing royalty reports or paying royalties to Philips:

- a. at least 30 million CD-Discs.

54. The CD-Discs made and sold by OEM after it stopped paying royalties to Philips have been and are available for purchase on the open market in the U.S., and within this district.

55. OEM does not contest that the CD-Discs made and sold in the U.S. by OEM after it stopped paying royalties to Philips comply with the relevant Standard Specifications.

56. OEM has failed to submit quarterly "Royalty Reporting Forms" to Philips listing all CD-Discs that it manufactures and sells, and/or to keep complete and accurate books and records, relating to OEM's manufacture and sale or other disposal of all CD-Discs in the U.S., as required by ¶¶ 5.3 and 5.10 of the Agreement.

57. OEM has failed to make payments due to Philips under the Second Workout Agreement and the 2006 Payment Agreement. The last installments received by Philips from OEM were the payments due October 15, 2007. Under the Second Workout Agreement, OEM owes Philips monthly payments of \$23,253.21 for November 15, 2007 through December 15, 2008. Under

the 2006 Payment Agreement, OEM owes Philips monthly payments of \$49,388.39 for November 15, 2007 through December 15, 2009.

Facts Relating to Patent Infringement Claim

58. The CD-Discs made and sold by OEM, Zerrusen, and Boyd in the U.S. without paying royalties to Philips fall within the claims of the '846 patent.

59. OEM's license to make and sell such CD-Discs in the U.S. is contingent upon OEM's payment of royalties to Philips. As set forth in this Complaint, OEM is in material breach of the Agreement.

60. As set forth in this Complaint, OEM, Zerrusen, and Boyd are making and selling CD-Discs covered by the '846 patent in the U.S. without paying royalties to Philips.

61. Zerrusen personally, actively, and knowingly controlled and directed OEM in making and selling CD-Discs covered by the '846 patent in the U.S. without paying royalties to Philips. Zerrusen knew that his actions would induce OEM to make and sell CD-Discs covered by the '846 patent.

62. Zerrusen intended to avoid personal liability for his acts of patent infringement by acting as OEM in making and selling CD-Discs covered by the '846 patent. Zerrusen is the alter ego of OEM.

63. Boyd personally, actively, and knowingly controlled and directed OEM in making and selling CD-Discs covered by the '846 patent in the U.S. without paying royalties to Philips. Boyd knew that his actions would induce OEM to make and sell CD-Discs covered by the '846 patent.

64. Boyd intended to avoid personal liability for his acts of patent infringement by acting as OEM in making and selling CD-Discs covered by the '846 patent. Boyd is the alter ego of OEM.

65. Because OEM has not paid royalties to Philips and is in material breach of the Agreement, as set forth in this Complaint, the CD-Discs made and sold by OEM since the breach began are not Licensed Products, and are not licensed, under the '846 patent.

66. Brilliance has purchased from OEM unlicensed CD-Discs that are covered by the '846 patent.

67. Brilliance uses, sells, and/or offers to sell CD-Discs in the U.S. purchased from OEM and covered by the '846 patent without a license from Philips and/or without paying royalties to Philips.

68. Cadmus has purchased from OEM unlicensed CD-Discs that are covered by the '846 patent.

69. Cadmus uses, sells, and/or offers to sell CD-Discs in the U.S. purchased from OEM and covered by the '846 patent without a license from Philips and/or without paying royalties to Philips.

70. The John Doe Defendants are making and/or selling CD-Discs covered by the '846 patent in the U.S. without a license from Philips under the Licensed Patents, and/or without paying royalties to Philips.

Count I
Breach of Contract
Asserted Against All Defendants Except Brilliance and Cadmus

71. Plaintiff repeats and realleges each and every allegation set forth in this Complaint.

72. The Agreement is a valid and subsisting agreement under New York law between Philips and OEM. The Agreement is supported by adequate consideration. Neither Philips nor OEM has terminated the Agreement.

73. In ¶ 13.7 of the Agreement, Philips and OEM agreed that New York law controls the construction of the Agreement.

74. OEM has materially breached the Agreement by failing to pay royalties on its manufacture and sale of CD-Discs, as set forth in this Complaint.

75. Zerrusen and Boyd intentionally induced OEM to breach the Agreement.

76. OEM has materially breached the Agreement in other ways, the details of which are unknown at this time.

77. In view of OEM's breach of the Agreement, Philips is entitled to receive royalties for OEM's manufacture and sale in the U.S. of CD-Discs after the date identified in ¶ 52 at the Standard Rates (3 cents (3¢) per disc for CD-ROM Discs).

78. OEM has materially breached the Agreement by failing to provide accurate audit statements to Philips listing all CD-Discs that it manufactures and sells, failing to submit quarterly "Royalty Reporting Forms" to Philips, and/or failing to keep complete and accurate books and records relating to OEM's manufacture and sale or other disposal of CD-Discs in the U.S., in breach of ¶ 5.2, 5.3, 5.5, and/or 5.10 of the Agreement.

79. Under ¶ 5.7 of the Agreement, Philips is entitled to interest on all unpaid royalties owed to Philips by OEM, accruing at the rate of 2% (two percent) per month, or the maximum amount permitted by applicable law, whichever is lower.

80. Under ¶ 13.5 of the Agreement, OEM agreed that neither Philips' failure nor delay in enforcing any provision of the Agreement shall constitute a waiver of such provision or of Philips' right to enforce any provision of the Agreement.

81. The Second Workout Agreement and 2006 Payment Agreement are valid and subsisting agreements between Philips and OEM, and are supported by adequate consideration. Neither Philips nor OEM has terminated such agreements.

82. OEM has materially breached the Second Workout Agreement and 2006 Payment Agreement by failing to make the payments due under such agreements on and after November 15, 2007. Philips is entitled to such payments.

83. In view of OEM's breach of the Agreement, the Second Workout Agreement, and/or the 2006 Payment Agreement, the entire remaining unpaid balances under the Second Workout Agreement and the 2006 Payment Agreement are now immediately due and payable, and Philips is entitled to injunctive relief and/or confession of judgment for such unpaid balances, and an award of its reasonable attorneys' fees and costs for enforcement of such agreements.

84. Philips has suffered monetary and other damages, in an as-yet undetermined amount, as the direct and proximate result of OEM's material breach of the Agreement, Second Workout Agreement, and/or 2006 Payment Agreement.

85. Philips has suffered monetary and other damages, in an as-yet undetermined amount, as the direct and proximate result of the inducement to breach the Agreement by Zerrusen and Boyd.

Count II
Patent Infringement
Asserted Against All Defendants

86. Plaintiff repeats and realleges each and every allegation set forth in this Complaint.

87. In the alternative to Philips' breach of contract claim with respect to the Agreement, OEM, Brilliance, Cadmus, Zerrusen, and Boyd have infringed and are continuing to infringe, literally and/or under the doctrine of equivalents, the '846 patent by practicing one or more claims of the '846 patent in their manufacture, use, offering for sale, sale, and/or importation of products, and/or by inducing or contributing to the infringement of the '846 patent, under 35 U.S.C. § 271.

88. The John Doe Defendants have infringed and are continuing to infringe, literally and/or under the doctrine of equivalents, the '846 patent by practicing one or more claims of the '846 patent in their manufacture, use, offering for sale, sale, and/or importation of products, and/or by inducing or contributing to the infringement of the '846 patent, under 35 U.S.C. § 271.

89. The '846 patent is valid and subsisting and is entitled to a presumption of validity under 35 U.S.C. § 282.

90. U.S. Philips Corporation is the assignee of all rights, title, and interest in and to the '846 patent and possesses all rights of recovery under the '846 patent.

91. A Reexamination Request for the '846 patent was filed in the U.S. Patent and Trademark Office on December 8, 2004. Ex Parte Reexamination Certificate No. US 5,068,846 C1 (the "Reexamination Certificate"), confirming the patentability of claims 1 through 7 of the '846 patent, was issued by the U.S. Patent and Trademark Office on September 19, 2006. A true copy of the Reexamination Certificate is attached as **Exhibit F**.

92. OEM, Zerrusen, and Boyd have had knowledge of the '846 patent at all times relevant to this action.

93. The infringement of the '846 patent by OEM, Zerrusen, and Boyd has been and continues to be willful, and therefore Philips is entitled to treble damages under 35 U.S.C. § 284.

94. Philips has suffered monetary and other damages in an as-yet undetermined amount, and irreparable injury, as the direct and proximate result of the infringement of the '846 patent by OEM, Brilliance, Cadmus, Zerrusen, and Boyd. Philips has no adequate remedy at law. Unless enjoined, OEM, Brilliance, Cadmus, Zerrusen, and Boyd will continue to infringe and to damage Philips irreparably.

Prayer for Relief

Wherefore, Philips requests that this Court enter judgment in its favor on each and every claim for relief set forth above and award it relief, including but not limited to a judgment and order as follows:

- A. holding Defendant Optical Experts Manufacturing, Inc. liable for breach of contract, specifically, the Agreement, the Second Workout Agreement, and/or the 2006 Payment Agreement;
- B. in the alternative with respect to Philips' breach of contract claim relating to the Agreement, holding Defendant Optical Experts Manufacturing, Inc. liable for patent infringement;
- C. holding Brilliance and Cadmus liable for patent infringement;
- D. holding the John Doe Defendants jointly and severally liable for patent infringement;
- E. holding Zerrusen and Boyd personally liable for actively inducing OEM to infringe under 35 U.S.C. § 271(b);
- F. holding that OEM was merely the alter ego of Zerrusen and Boyd, and holding Zerrusen and Boyd personally liable for direct infringement under 35 U.S.C. § 271(a);
- G. directing OEM, Zerrusen, and Boyd to pay to Philips its actual damages for:
 - a. OEM's breach of contract; or

b. in the alternative with respect to Philips' breach of contract claim relating to the Agreement, OEM, Zerrusen, and Boyd's patent infringement, under 35 U.S.C. § 284;

H. directing Brilliance and Cadmus to pay Philips its actual damages for patent infringement under 35 U.S.C. § 284;

I. directing the John Doe Defendants to pay to Philips its actual damages for patent infringement, under 35 U.S.C. § 284;

J. directing OEM, Zerrusen, and Boyd to pay unpaid royalties at the Standard Rates;

K. directing OEM to pay the entire remaining unpaid balances under the Second Workout Agreement and the 2006 Payment Agreement, and directing OEM to confess judgment for such amounts;

L. directing OEM, Brilliance, Cadmus, Zerrusen, Boyd, and the John Doe Defendants to pay Philips' other damages, including but not limited to direct, consequential, indirect, compensatory, and punitive damages;

M. directing OEM, Zerrusen, and Boyd to pay interest on all unpaid royalties;

N. holding that OEM's, Zerrusen's, Boyd's, and the John Doe Defendants' patent infringement has been and continues to be willful, and trebling Philips' damages;

O. enjoining OEM, Brilliance, Cadmus, Zerrusen, Boyd, and the John Doe Defendants from making, having made, using, importing, or selling CD-Discs under 35 U.S.C. § 283, and/or from continuing to breach the Second Workout Agreement and the 2006 Payment Agreement;

P. directing OEM, Brilliance, Cadmus, Zerrusen, Boyd, and/or the John Doe Defendants to pay Philips' attorneys' fees and costs under 35 U.S.C. § 285 and/or the Second Workout Agreement and the 2006 Payment Agreement;

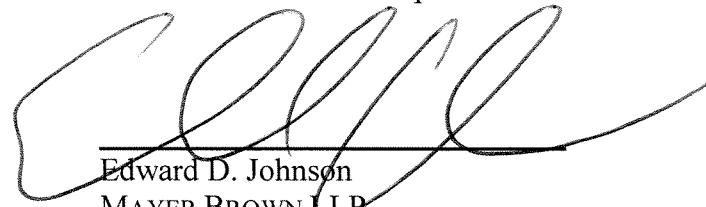
Q. directing OEM, Brilliance, Cadmus, Zerrusen, Boyd, and the John Doe Defendants to pay prejudgment and post-judgment interest;

R. providing such other and further relief as this Court deems just and appropriate.

Jury Trial

Philips demands a jury trial on all claims set forth in this Complaint.

Date: June 10, 2008



Edward D. Johnson
MAYER BROWN LLP
Two Palo Alto Square, Suite 300
3000 El Camino Real
Palo Alto, California 94306-2112
Tel: (650) 331-2000
Fax: (650) 331-2060

Christopher J. Houpt
MAYER BROWN LLP
1675 Broadway
New York, New York 10019
Tel: (212) 506-2380
Fax: (212) 849-5830

Vince P. Kovalick
John F. Hornick
Samuel C. Bass
FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.
901 New York Avenue, N.W.
Washington, D.C. 20001-4413
Tel: (202) 408-4000
Fax: (202) 408-4400

*Attorneys for Plaintiffs
Koninklijke Philips Electronics N.V. and
U.S. Philips Corporation*

Exhibit A

United States Patent [19]

Kramer

[11] Patent Number: **5,068,846**[45] Date of Patent: **Nov. 26, 1991**[54] **REFLECTIVE, OPTICAL RECORD CARRIER**[75] Inventor: **Pieter Kramer**, Eindhoven, Netherlands[73] Assignee: **U.S. Philips Corporation**, New York, N.Y.[21] Appl. No.: **858,550**[22] Filed: **Apr. 23, 1988****Related U.S. Application Data**

[63] Continuation of Ser. No. 146,554, May 5, 1980, abandoned, which is a continuation of Ser. No. 949,919, Oct. 10, 1978, abandoned, which is a continuation of Ser. No. 772,914, Feb. 28, 1977, abandoned, which is a continuation of Ser. No. 344,867, Mar. 26, 1973, abandoned.

[30] **Foreign Application Priority Data**

Sep. 2, 1972 [NL] Netherlands 7211999

[51] Int. Cl.⁵ G11B 7/24; H04N 5/85

[52] U.S. Cl. 369/275.1; 358/342;

369/275.5; 369/109

[58] **Field of Search** 358/342; 365/113, 120; 369/275, 109, 93-94, 125, 107, 111, 275.1, 275.4, 275.5, 275[56] **References Cited****U.S. PATENT DOCUMENTS**

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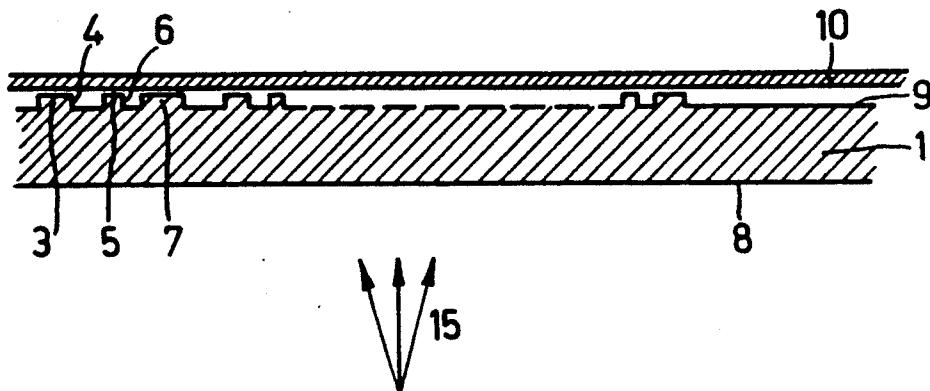
Rice et al., An Experimental Television Recording and Playback System Using Photographic Discs, Journal of the SMPTE, vol. 79, No. 11, 11/70, pp. 997-1002.

Primary Examiner—Robert Weinhardt
 Attorney, Agent, or Firm—Algy Tamoshunas; Leroy Eason

[57] **ABSTRACT**

A record carrier for information, for example video and/or audio information, in the form of a disk-shaped carrier substrate provided with an optical structure in accordance with the information is described. By making the optical structure radiation-reflecting and the substrate radiation-transmitting, whilst the surface of the substrate more remote from the optical structure forms both the entrance face and the exit face for the read radiation, and by coating a surface of the optical structure more remote from the substrate with an additional layer, a simple record carrier is obtained which is well protected against dust particles and damage.

7 Claims, 3 Drawing Sheets



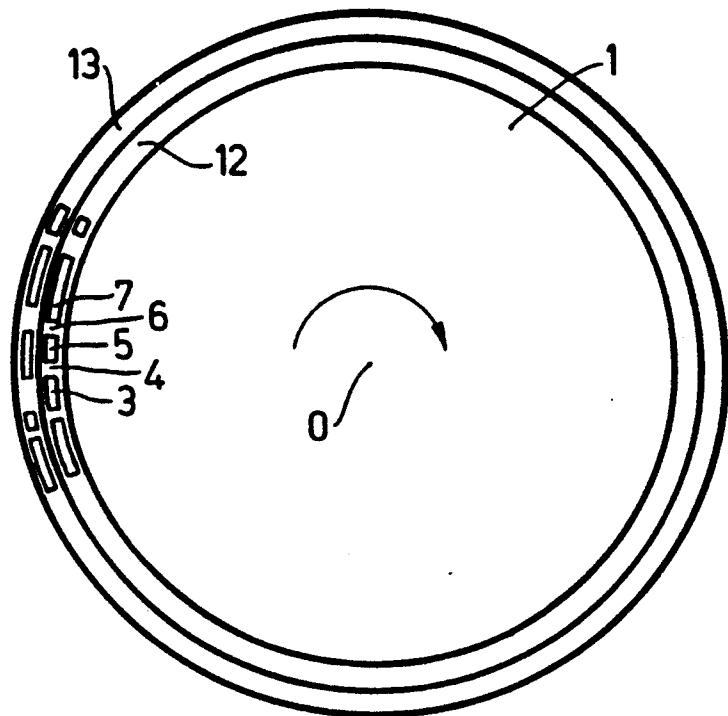


Fig.1

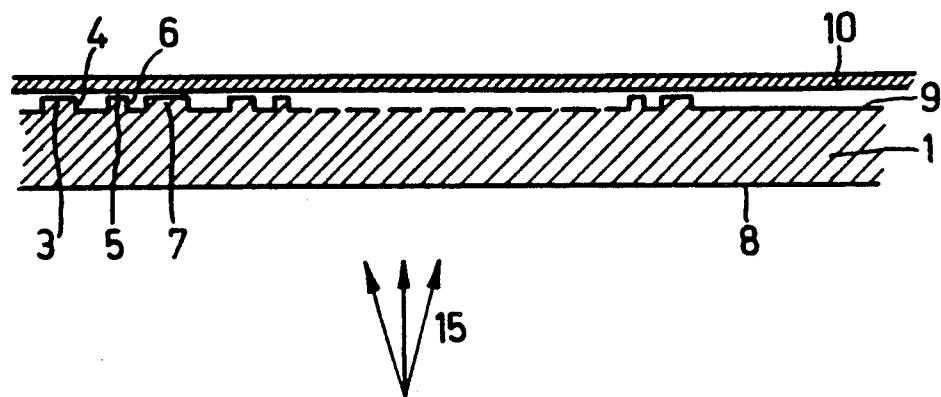


Fig.2

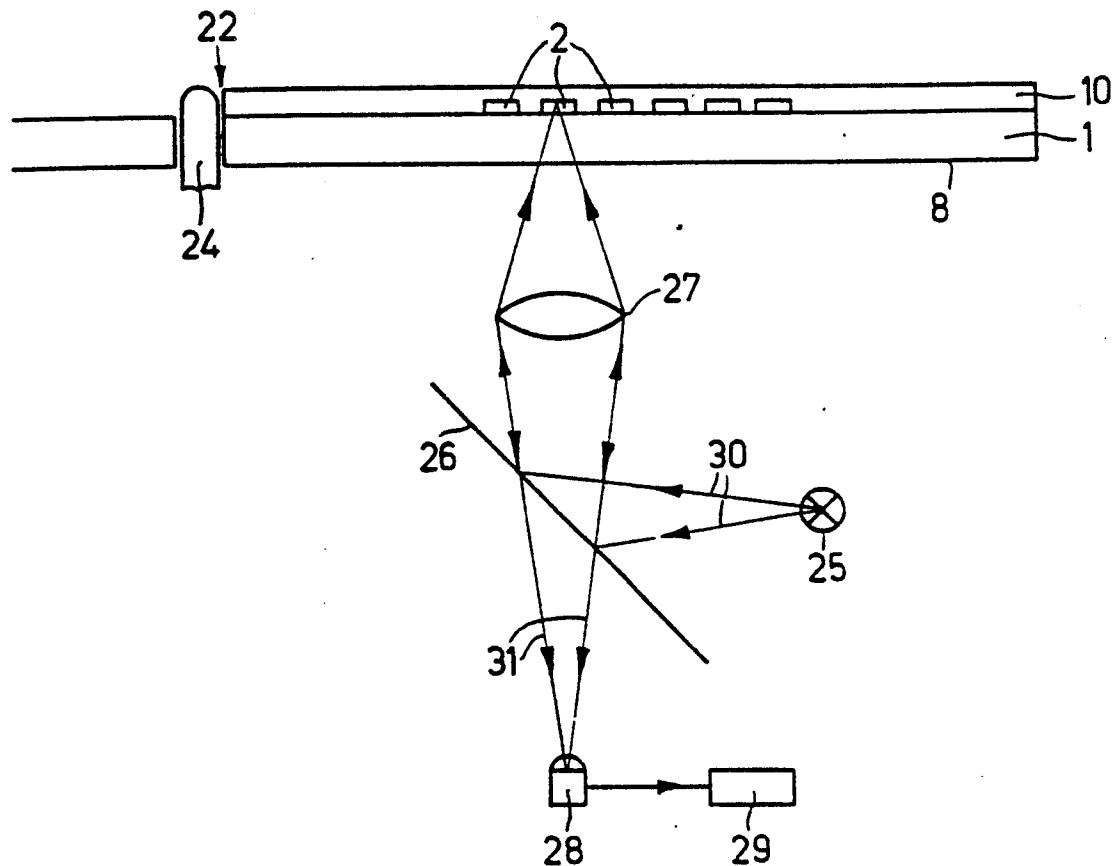


Fig.3

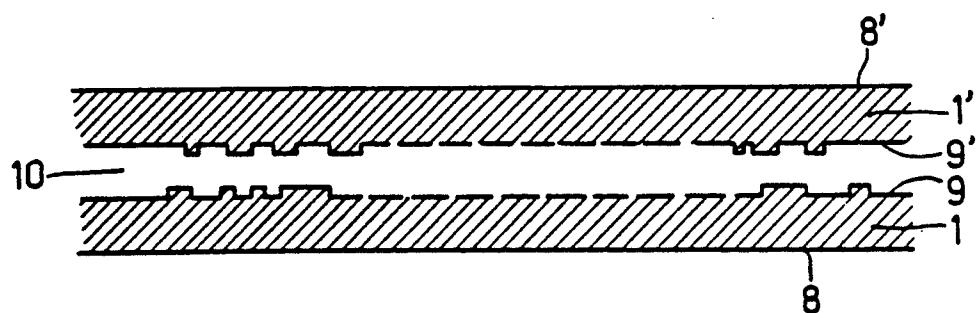


Fig.4

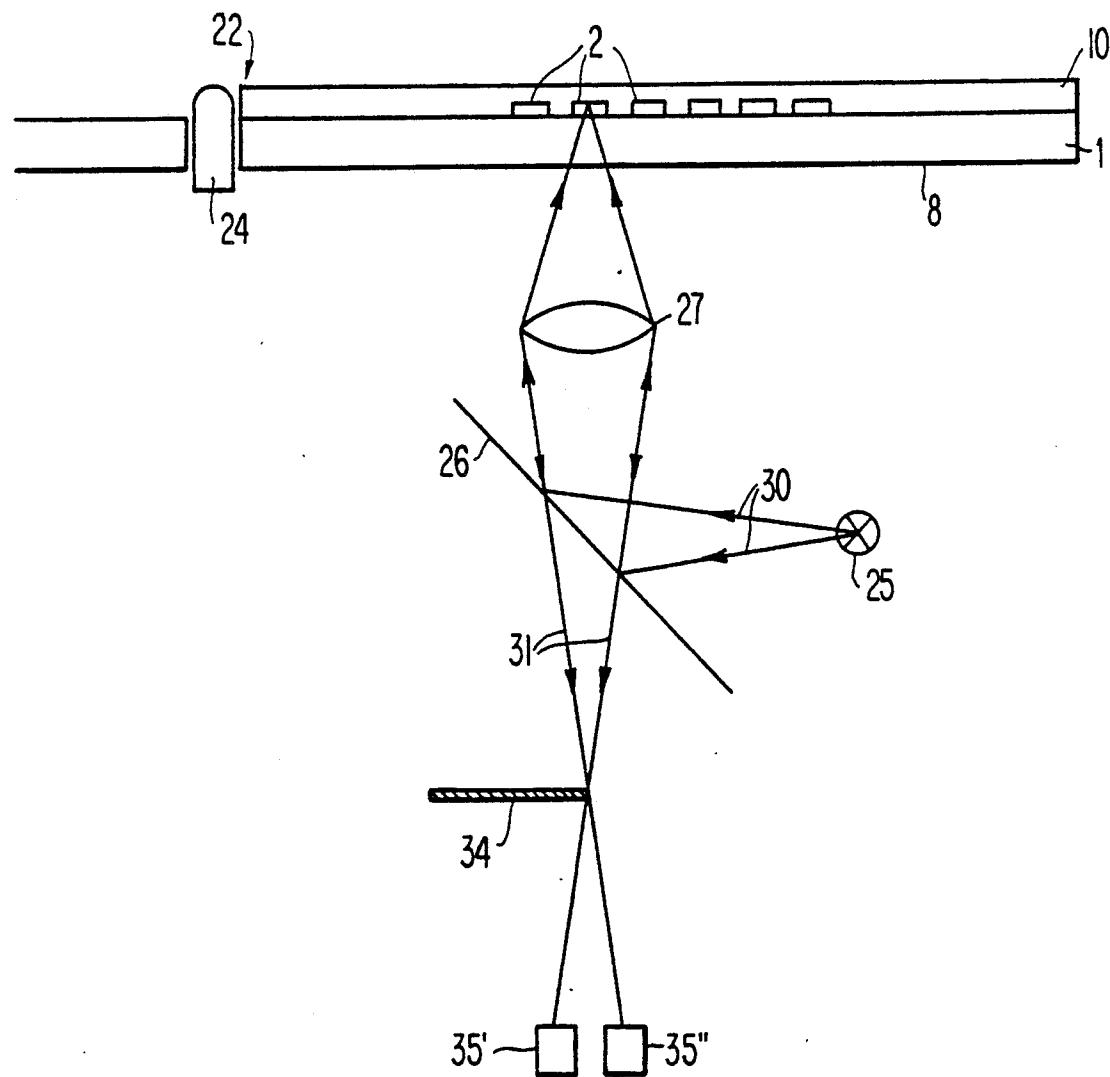


FIG. 5

REFLECTIVE, OPTICAL RECORD CARRIER

This application is a continuation of Ser. No. 146,554, filed May 5, 1980, which is a continuation of Ser. No. 949,919, filed Oct. 10, 1978, which is a continuation of Ser. No. 772,914, filed Feb. 28, 1977, which is a continuation of Ser. No. 344,867, filed Mar. 26, 1973, all such prior applications having been abandoned. This application is, further, a continuation-in-part of Ser. No. 229,285, filed Feb. 25, 1972, abandoned, which was continued as application Ser. No. 396,399, filed Sept. 12, 1973, abandoned, which was continued as application Ser. No. 618,215, filed Sept. 30, 1975, and issued as U.S. Pat. No. 4,041,530, dated Aug. 9, 1977.

The invention relates to a record carrier for information, for example video and/or audio*information, in the form of a disk-shaped carrier substrate on which an optical structure is provided in accordance with the information, which record carrier is intended to be read by means of optical radiation. The invention also relates to an apparatus for reading the record carrier.

Such a record carrier and read apparatus are known and are described, *inter alia*, in "Journal of the S.M.P.T.E." 79(November 1970) pages 997-1002. In the known record carrier the information is stored in analog form, for example in the form of areas which have different absorption coefficients and are arranged in tracks. This registration carrier is read in the transmission mode in which a read beam enters the carrier on the side of the optical structure and emerges from it on the opposite side. In its passage through the carrier the beam is modulated by the structure in accordance with the information stored in it. The modulated beam is converted into an electric signal by a radiation-sensitive detector.

Because a large amount of information is stored on the record carrier, the details of the optical structure are very small, if, for example, a video program having a duration of 45 minutes is stored on a disk record carrier having an outer diameter of 30 cm, the size of the details will be of the order of 1 μm . Reading such a fine structure is highly susceptible to dust particles, fluff and the like. If these small objects lie on the optical structure, they may cover a large number of adjacent tracks and details in these tracks, preventing the latter from being read. In addition there is a very real possibility that, for example when the record carrier is handled or placed in the read apparatus, scratches and the like are made in the optical structure. Because the record carrier is intended to be played back in non-ideal circumstances, for example in the living room, provisions must be made to render the optical structure more or less unsusceptible to dust and damage.

The aforementioned paper proposes to coat the optical structure with an additional transparent layer. This is done to ensure that dust particles screen off only part of the read beam focussed on the optical structure of the record carrier. However, this requires the protective layer to have a minimum thickness of the order of many times the depth of focus of the lens used, for example a thickness of 100 μm . Moreover, the protective layer must intimately engage the optical structure, preventing the occurrence of local air bubbles between the optical structure and the protective layer.

In the known apparatus it is attempted to maintain the focus of the objective which focusses the read beam on the optical structure by causing the objective to "fiont"

on an air cushion on the record carrier. This pre-supposes, however, that the thickness of the protective layer is constant throughout the entire surface, or at least that it contains no variations in excess of the depth of focus of the objective, which is of the order of 1 μm .

Consequently the protective layer has to satisfy exacting requirements.

It is an object of the present invention to provide a record carrier in which the optical structure is protected against dust particles and damage without the use of a protective layer which is required to satisfy stringent requirements. For this purpose the record carrier according to the invention is characterized in that the optical structure is a radiation-reflecting structure and the carrier substrate is radiation-transmitting, the surface of the carrier substrate more remote from the optical structure forming both the entrance face and the exit face for the read radiation. In this record carrier the carrier substrate itself ensures that dust particles are sufficiently spaced away from the optical structure.

According to a further feature of a record carrier according to the invention, the surface of the optical structure more remote from the carrier substrate is provided with an additional layer. Because the optical structure is completely embedded between two layers, it cannot readily be damaged.

The optical structure is read in the reflection mode, which means that the read beam is modulated by reflection at the optical structure. The additional layer is not traversed by the read beam and is only required to protect the optical structure from damage. Hence this layer need not satisfy exacting requirements. It need not be radiation-transmissive and need not have a constant thickness throughout its surface. In addition, it need not accurately engage the optical structure. It may, for example, be a plate which is secured to the carrier substrate along the edge.

The reflecting optical structure may be in the form of co-planar radiation-reflecting regions and intermediate areas, the areas having a coefficient of reflection different from that of the regions. Preferably, however, the optical structure consists of regions and intermediate areas having equally high reflection coefficients but situated at different levels.

The record carrier according to the invention differs from the known record carrier not only in construction but also in the manner in which during reading the read beam is maintained in focus on the optical structure. The flatness of the carrier substrate also which is required when employing the known method (an objective supported by an air cushion) can only be achieved by painstaking polishing. This greatly increases the cost of the disk. Optical determination according to the invention of the deviation between the plane of the optical structure and the plane in which the beam of radiation is focussed enables the range of permissible thickness variations over the carrier substrate to be extended to, for example, 300 μm .

Embodiments of the invention will now be described, by way of example, with reference to the accompanying diagrammatic drawings, in which:

FIG. 1 is a plan view of a record carrier not coated with an additional layer,

FIG. 2 is a cross-sectional view of an embodiment of a record carrier according to the invention,

FIG. 3 is a known apparatus for reading the record carrier,

FIG. 4 is a cross-sectional view of a second embodiment of a record carrier according to the invention, and

FIG. 5 shows an arrangement for detecting focusing errors during reading of information from the record carrier.

FIG. 1 is a plan view of a circular record carrier. The carrier may contain a spiral structure comprising a plurality of quasi-concentric tracks. As an alternative, the tracks may be concentric, as is shown in FIG. 1. Only parts of two adjacent tracks denoted by 12 and 13 are shown. Each of the tracks contains, for example, a crenellated structure comprised of depressions which are spaced apart by intermediate areas or lands in the track direction, the dimensions of which are shown greatly exaggerated in FIG. 2, which is a tangential sectional view of a record carrier according to the invention. The spacings between, and the length of, the upper surfaces 3 and 5, 5 and 7, and so on of the merlons are different. Their heights 4, 6, and so on are equal to one another and, preferably, to about one quarter wavelength of the radiation used for reading. Instead of perpendicular leading and trailing edges the optical structure may alternatively have smooth transitions between the upper and lower surfaces.

The carrier substrate 1 transmits the radiation used for reading. The optical structure is provided on the upper surface of the disk, whilst the lower surface acts both as the entrance surface for the unmodulated beam and as the exit surface for the modulated beam. The faces of the optical structure have been made highly reflecting, for example in that after the structure has been pressed in the substrate a metal layer is deposited on it from vapour. The thickness of this metal layer is not of importance. A protective layer 10 is provided on top of the optical structure. The only purpose of this layer is to protect the optical structure of the record carrier against damage. Hence any layer which provides protection against rough handling of the carrier may be used. As FIG. 2 shows, the layer may be a thin disk which is spaced from the optical structure and is secured to the substrate along the edge only. In addition, a sheet of paper or a foil of a synthetic material provided with an adhesive on one surface may be stuck onto the optical structure. As an alternative, as is shown in FIG. 4, the layer, for example a sprayed layer of lacquer, may be provided on and between the merlons, in which case the thickness of the layer must be greater than the height of the merlons. Because the optical structure lies between the substrate 1 and the layer 10 it is fairly capable of withstanding rough handling.

A read beam (15) is modulated in phase by the crenellated structure shown in FIG. 2. As an alternative, the upper surface 9 of the substrate may be provided with a structure of radiation-reflecting regions and radiation-absorbing intermediate areas, causing the read beam to be modulated in amplitude.

When the disk record carrier shown in FIG. 1 is to be read, it is rotated at a speed of, for example, 1500 revolutions per minute by means of a driving spindle 24, as is shown in FIG. 3. In this Figure the record carrier is shown in radial section. A read beam 30 emitted by a source of radiation 25 is reflected to the record carrier by a half-silvered mirror 26. The beam passes through the carrier substrate 1 to be reflected at the optical structure (shown as tracks 2) on the upper surface of the disk. An objective 27 forms an image of the source on the optical structure, the size of this image being of the order of the smallest detail of the structure.

During rotation of the record carrier the read beam is modulated in time in accordance with the sequence of, for example, the merlons in a track. The modulated read beam 31 passes through the half-silvered mirror 26 to be intercepted by a radiation-sensitive detector 28. At the output of the detector an electric signal is produced which corresponds to the information stored in the record carrier. The detector 28 may be connected to known electronic means for converting the output signal of the detector into picture and sound.

The advantages of reading in reflection will be clear from FIG. 3. All the optical elements and the electronic processing devices are disposed on one side of the record carrier, permitting the carrier to be readily placed in the read apparatus. Moreover the elements may be incorporated so as to be well protected. Furthermore the number of optical elements may be reduced, because some elements are used twice. The reduced number of elements results in a reduced likelihood of relative oscillations.

Also, the record carrier may be read in a non-dustfree room, for example a living room, for dust particles deposited on the layer 10 have no effect, because the read beam does not pass through this layer. A dust particle on the lower surface 8 of the substrate may reduce the intensity of the radiation incident on the optical structure. However, a reduction in intensity is not highly inconvenient, because the information is recorded in digital form. A dust particle cannot entirely intercept the beam, because the beam has a comparatively large diameter in the plane of the dust particle. This is due to the fact that the substrate by nature has a certain thickness, *inter alia* because of the desired rigidity.

If the record carrier is to be suitable for manufacture by mass production methods, the flatness of the substrate should not have to satisfy exacting requirements. However, because the depth of focus of the objective 27 is of the order of 1 μm , variations in the thickness of the substrate may cause parts of the optical structure to become located outside the focussed light spot at the sites of these variations. These thickness variations, which cannot be compensated for by an objective floating on an aircushion, may cause the detector to receive not only radiation from the track part to be read, but also radiation from the surroundings of this part. As a result, the modulation depth of the output signal from the detector is reduced, while moreover, because not one track only but adjacent tracks are also illuminated, crosstalk may occur.

According to the invention the record carrier described may be used to advantage if during reading an optical focussing detection method is employed. For this purpose read apparatuses provided with focussing detection systems described in the patents identified below may be used. The use of the apparatuses for reading the record carrier according to the invention described in these patents means that the possibilities of the apparatuses described therein are particularly efficiently utilized.

One such arrangement is illustrated in FIG. 5 wherein a screen 34 is disposed in the path of the reflected beam 31 at a position such that the detectors 35' and 35'' receive equal amounts of radiation when the beam is properly focused on the reflective optical structure. If, on the other hand, the plane of the optical structure shifts from the desired position, the screen will intercept the rays which travel to one of the detectors

so that said one detector will receive less radiation than the other. The amount and direction that the plane of the reflective optical structure deviates from the desired position can thus be determined by comparison of the output signals from the detectors 35' and 35".

An optical determination of the deviation between the plane of the optical structure and the plane in which the read beam is focussed may be effected by imaging a grating constituted by adjacent tracks of the optical structure on two physical gratings spaced from the record carrier by different distances. The difference between the output signals of the detectors disposed behind the gratings indicates the magnitude and the direction of any deviation. A read apparatus including such focussing detection is described in U.S. Pat. No. 3,833,769.

A second possibility is offered by the apparatus described in U.S. Pat. No. 4,010,317 in which two detectors are arranged side by side, viewed in the direction of length of the track. The detectors intercept two different parts of the modulated beam.

As an alternative, the deviation between the plane of the optical structure and the plane in which the read beam is focussed may be detected without using the details in the optical structure, in contradistinction to 25 the two aforementioned apparatuses. In such a method the optical structure is used only as a reflecting face, as is described in U.S. Pat. No. 3,876,841 and U.S. Pat. No. 3,876,842. By means of, *inter alia*, this face an image of an object is formed, the location of this image being 30 determined by the location of the plane of the reflecting optical structure.

FIG. 4 shows a second embodiment of a record carrier according to the invention. Two substrates 1 and 1' which each have an optical structure on one surface 9 and 9' respectively are combined with an intermediate layer 10 to form an integral unit. Such a record carrier may be manufactured by methods known from the technology of disk-shaped sound records. The structures on the surfaces 9 and 9' are read by means of beams in opposite directions. In this embodiment the layer 10 is only required to separate the optical structures and need not protect them against external influences.

In the record carrier shown in FIG. 4 the two halves of one program may be stored in the two optical structures. 45

The record carrier shown in FIG. 4 is eminently suitable to realize a further invention idea. According to this idea information about the same colored pictures is stored in different color codes in two optical structures of one record carrier. In one of these optical structures the program may be recorded, for example, according to the PAL-standard and in the other optical structure according to the Secam-standard or the NTSC-standard. The advantage is that the same information on one record carrier may be used in a large geographic area in spite of the fact that different apparatuses are used for rendering pictures and sound visible and audible respectively. 50 55

What is claimed is:

1. A record carrier containing information which is readable by a beam of radiation, said record carrier comprising a disc-shaped, radiation-transmitting substrate having a pair of planar surfaces on opposite sides thereof, a non-transmissive, radiation reflecting optical structure on one of said planar surfaces of said substrate, said optical structure comprising a plurality of adjacent, circular tracks extending about the center of said sub-

strate and defining turns of a spiral or concentric circles spaced from each other in the radial direction, each circular track having a plurality of depressions in said one surface of said substrate, said depressions being spaced apart in the track direction by intermediate areas, and a reflective layer extending over said intermediate areas and said depressions so that upon illumination by a convergent beam of radiation which is projected on and enters through the other of said planar surfaces and which passes through said substrate and is focussed on said optical structure to a spot of a size of the order of the smallest detail of said optical structure, the radiation is modulated by said depressions and intermediate areas in accordance with the sequence thereof and the modulated radiation is reflected by said reflective layer towards and exists through said other planar surface, said substrate defining a substantially rigid support for said optical structure and having a thickness such that in the plane of said other surface, which forms the entrance and exit faces for the radiation, the diameter of the beam is sufficiently larger than the diameter of said spot so that dust particles, scratches and the like on said other surface, do not interfere with readout of information by the convergent beam focussed to said spot on said optical structure, and an additional layer secured to the side of said substrate remote from said other surface, said optical structure being disposed between said substrate and said additional layer so that it is protected from damage during handling.

2. The record carrier according to claim 1 wherein said depressions are pressed into said one surface of said substrate and said reflective layer is metallic and is deposited on said one surface.

3. The record carrier according to claim 1 or 2 wherein the thickness of said additional layer is substantially smaller than the thickness of said substrate.

4. The record carrier according to claim 2 wherein said reflective, metallic layer is deposited on said one surface from vapour.

5. The record carrier according to claim 4 wherein said additional layer is a layer of lacquer sprayed on said optical structure.

6. An apparatus for reading information stored on a record carrier having a disk-shaped radiation transmitting substrate with a pair of parallel, planar surfaces on opposite sides thereof and a non-transmissive, radiation reflecting optical structure disposed on one of said planar surfaces, said optical structure comprising a plurality of adjacent, circular tracks extending about the center of the substrate and defining turns of a spiral or concentric circles spaced from each other in the radial direction, each circular track having a plurality of depressions spaced apart by intermediate areas in the track direction, said apparatus comprising means for supporting the record carrier for rotation about the center of the substrate in a plane parallel to the plane of said one surface, means positioned on the side of said substrate remote from said optical structure for producing a beam of radiation which is projected onto the other surface of

60 said substrate so that the radiation passes through said substrate and is incident on said reflective optical structure, an objective system for focusing said beam to a spot on said optical structure so that the radiation is modulated by said optical structure in accordance with 65 information stored thereby and the modulated radiation is reflected by said optical structure back through said other surface and passes through said objective system, said substrate having a thickness such that in the plane

of said other surface the diameter of the beam is sufficiently larger than the diameter of said spot so that dust particles, scratches and the like on said other surface do not interfere with readout of information by the beam focussed to said spot on said optical structure, radiation-sensitive means for converting the modulated radiation into an electrical signal, said radiation sensitive means being disposed in the path of the modulated radiation reflected by the optical structure, and means for deriving from the radiation a signal indicative of a deviation of the plane of the optical structure from the plane at which the radiation is focused by said objective system for correcting the focusing.

7. A record carrier containing information which is readable by a beam of radiation, said record carrier comprising a pair of disc-shaped, radiation-transmitting substrates each having a pair of planar surfaces on opposite sides thereof, a non-transmissive, radiation reflecting optical structure on one of said planar surfaces of each substrate, said optical structures each comprising a plurality of adjacent, circular tracks extending about the center of said substrate and defining turns of spiral or concentric circles spaced from each other in the radial direction, each circular track having a plurality of depressions which are spaced apart in the track direc- 15

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tion by intermediate areas, said substrates being disposed in a superposed relationship with said optical structures being adjacent each other so that upon illumination of said one optical structure by a beam of radiation which is projected on and enters through the other of said planar surfaces of the associated substrate and which passes through said associated substrate and is focussed on said one optical structure to a spot of a size of the order of the smallest detail of the optical structure, the radiation is modulated by said depressions and intermediate areas in accordance with the sequence thereof and the modulated radiation is reflected by said one optical structure towards and exits through said other planar surface of said associated substrate, each substrate defining a substantially rigid support for the respective optical structure and having a thickness such that in the plane of said other surface, which forms the entrance and exit faces for the radiation, the diameter of the beam is sufficiently larger than the diameter of said spot so that dust particles, scratches and the like on said other surface, do not interfere with readout of information by the convergent beam focussed to said spot on said optical structure.

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CD DISC PATENT LICENSE AGREEMENT

This Agreement is entered into this 1st day of July, 2002 by and between

KONINKLIJKE PHILIPS ELECTRONICS N.V., having its registered office in Eindhoven, The Netherlands, (hereinafter referred to as "Philips")

and

OPTICAL EXPERTS MANUFACTURING, INC., having its registered office in 8500 South Tryon Street, Charlotte, NC 28273 (hereinafter referred to as "Licensee").

WHEREAS, the Philips' group of companies has for many years been engaged in research and development of systems, in which signals encoded in digital form and stored on a disc are read and reproduced by means of devices using an optical read-out beam, and has acquired valuable know-how and expertise therein;

WHEREAS, one of the achievements of such research and development efforts has been a revolutionary high-fidelity sound storage and reproduction system, of which the specifications have been further defined in a joint research and development co-operation with Sony Corporation ("Sony") and which has been presented under the name "Compact Disc Digital Audio System" (CD-Audio System);

WHEREAS, on the basis of the CD-Audio System Philips and Sony have developed a further system, which has been presented under the name "Compact Disc Data System" (CD-ROM System);

WHEREAS, Philips and Sony have developed an additional multi-session CD system, which has been presented under the name "Enhanced Music Compact Disc System" ("Enhanced Music CD System" or "CD Extra System" (the CD-Audio System, the CD-ROM System and the CD Extra System are collectively referred to as "the CD Systems");

WHEREAS, Philips and Sony each own certain patents relating to the CD Systems;

WHEREAS, Philips has been authorized by Sony to grant licenses under certain patents relating to the CD Systems, which are owned or controlled by Sony and its Associated Companies (as hereinafter defined), as well as under such patents relating to the CD Systems as are jointly owned by Philips and Sony;

WHEREAS, Philips and Sony have each retained their rights to license their respective patents separately and to give non-assertion undertakings with regard to jointly owned patents, whether within or outside the standard specifications of the CD Systems, so that interested manufacturers may opt to take out separate licenses under the relevant patents of each of Philips and Sony, instead of a combined license;

WHEREAS, Licensee has requested from Philips a license under the relevant patents of Philips and Sony relating to CD-Discs (as hereinafter defined) and wishes such CD-Discs to be compatible with devices capable of playing discs, conforming to the Standard Specifications for any of the relevant CD Systems;

WHEREAS, Philips is willing to grant Licensee a license under the relevant patents and to make available certain basic information relating to the CD Systems, on the conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual obligations and covenants hereinafter set forth, the parties hereto have agreed as follows:

1. Definitions

The following terms used in this Agreement shall have the meanings set out below:

- 1.1 "Disc" shall mean a non-recordable reflective disc-shaped information carrier comprising any kind of information including, but not limited to, audio, video, text and/or data-related information, which is irreversibly stored in a layer during and as an integral part of the manufacturing process of the disc in a form which is optically readable by playback devices using a laser-beam.
- 1.2 "CD-Audio Disc" shall mean a Disc comprising audio information encoded in digital form, which is optically readable by a CD-Audio Player (as hereinafter defined) and which conforms to the CD-Audio Standard Specifications (as hereinafter defined). A CD-Audio Disc may, in addition to audio information, comprise CD Text information.
- 1.3 "CD-Audio Maxi-Single" shall mean a CD-Audio Disc which, in addition to conforming to the CD-Audio Standard Specifications, conforms to the CD-Audio Maxi-Single Standard Specifications.
- 1.4 "CD-ROM Disc" shall mean a Disc containing data, arranged in sectors as defined in the CD-ROM Standard Specifications (as hereinafter defined) in the chapter Digital Data Structure, Parts I to V, under the names: General data specification, Sync., Header, User data and Auxiliary data respectively, and protected against errors in accordance with the error correction system as defined in the CD-ROM Standard Specifications in the chapter Error Correction System under the name Cross Interleaved Reed-Solomon Code - "CIRC".
- 1.5 "CD-ROM Disc mode 1" shall mean a CD-ROM Disc with an additional error correction system for computer or other data as defined in the CD-ROM Standard Specifications in the chapter Digital Data Structure, Part VII, under the name Error Detection and Error Correction specification (a third layer error correction).
- 1.6 "CD-ROM Disc mode 2" shall mean a CD-ROM Disc containing data protected against errors solely by the error correction system as defined in the CD-ROM Standard

Specifications in the chapter Error Correction System under the name Cross Interleaved Reed-Solomon Code - "CIRC".

- 1.7 "CD-ROM XA Disc sub-mode 1" shall mean a CD-ROM Disc, which is in compliance with the CD-ROM-XA Specifications (as hereinafter defined) and comprises at least one sector containing data protected by an additional error correction system for data as defined in the CD-ROM Standard Specifications in the chapter Digital Data Structure, Part VII, under the name Error Detection and Error Correction specification (a third layer error correction).
- 1.8 "CD-ROM XA Disc sub-mode 2" shall mean a CD-ROM Disc, which is in compliance with the CD-ROM-XA Specifications and comprises solely sectors containing data protected against errors solely by the error correction system as defined in the CD-ROM Standard Specifications in the chapter Error Correction System under the name Cross Interleaved Reed-Solomon Code - "CIRC".
- 1.9 "CD Extra Disc" shall mean a Disc conforming to the Enhanced Music CD Standard Specifications (as hereinafter defined) and which comprises first information encoded in digital form, which is optically readable by a CD-Audio Player and which conforms to the CD-Audio Standard Specifications, and second information conforming to the CD-ROM XA Specifications and which is optically readable by a CD-ROM Player or by an Enhanced Music CD Player (as hereinafter defined).
- 1.10 "CD Extra Disc sub-mode 1" shall mean a CD Extra Disc wherein the second information is in accordance with the data format on a CD-ROM XA Disc sub-mode 1.
- 1.11 "CD Extra Disc sub-mode 2" shall mean a CD Extra Disc wherein the second information is solely in accordance with the data format on a CD-ROM XA Disc sub-mode 2.

The CD-Audio Disc, the CD-Audio Maxi-Single, the CD-ROM Disc mode 1 and mode 2, the CD-ROM XA Disc sub-mode 1 and sub-mode 2 and the CD Extra Disc sub-mode 1 and sub-mode 2 are collectively referred to as "CD-Disc(s)".

- 1.12 "CD-Audio Standard Specifications" shall mean the specifications for the CD-Audio System, including, if applicable, the Subcode/Control and Display System, Channels R ..W, chapter 5.8, the CD-TEXT mode, as made available, modified or extended from time to time.
- 1.13 "CD-Audio Maxi-Single Standard Specifications" shall mean the specifications for the CD-Audio Maxi-Single system, specifying among other things a maximum playing time of 30 minutes, as made available, modified or extended from time to time. For the purpose of this Agreement, the CD-Audio Maxi-Single Standard Specifications shall be considered to form part of the CD-Audio Standard Specifications.
- 1.14 "CD-ROM Standard Specifications" shall mean the specifications for the CD-ROM System as made available, modified or extended from time to time.
- 1.15 "CD-ROM-XA Specifications" shall mean the specifications of the System Description CD-ROM XA as made available, modified or extended from time to time.

1.16 "Enhanced Music CD Standard Specifications" shall mean the specifications for the Enhanced Music CD System as made available, modified or extended from time to time. The CD-Audio Standard Specifications, the CD-Audio Maxi-Single Standard Specifications, the CD-ROM Standard Specifications, the Enhanced Music CD Standard Specifications and the CD-ROM-XA Specifications are collectively referred to as the "CD Standard Specifications".

1.17 "Player" shall mean a single spindle playback device for optically reading information stored on a Disc and converting such information into electrical signals for reproduction purposes.

1.18 "CD-Audio Player" shall mean a Player solely capable of reproducing information stored on a CD-Audio Disc or CD-Audio Maxi-Single and converting such information into electrical signals, in accordance with the CD-Audio Standard Specifications, which electrical signals are directly capable of and intended to be used for sound reproduction through amplifiers and loudspeakers.

1.19 "CD-ROM Player" shall mean a Player solely capable of reproducing information stored on any kind of CD-ROM Disc and converting such information into electrical signals, in accordance with the CD-ROM Standard Specifications, which electrical signals are directly capable of and intended to be used for the reproduction of computer related data through data handling and/or data processing equipment.

1.20 "Enhanced Music CD Player" shall mean a Player solely capable of reproducing information stored on any kind of CD Extra Disc and converting such information into electrical signals, in accordance with the Enhanced Music CD Standard Specifications, which electrical signals are directly capable of and intended to be used for the reproduction of video, text and/or computer related data through data handling and/or data processing equipment.

1.21 "Combi-Player" shall mean a Player which is any combination of a CD-Audio Player, a CD-ROM Player and/or an Enhanced Music CD Player.

The CD-Audio Player, the CD-ROM Player, the Enhanced Music CD Player and the Combi-Player are collectively referred to as the "CD-Players".

1.22 "Licensed Product(s)" shall mean

Option A: CD-Audio Discs and/or CD-Audio Maxi Singles

Option B: CD-Audio Discs and/or CD-Audio Maxi Singles containing CD Text information

Option C: CD-ROM Discs mode 1

Option D: CD-ROM Discs mode 2

Option E: CD-ROM XA Discs sub-mode 1

Option F: CD-ROM XA Discs sub-mode 2

Option G: CD-Extra Discs sub-mode 1

Option H: CD-Extra Discs sub-mode 2

Option I: CD-Extra Discs sub-mode 1 containing CD Text information

Option J: CD-Extra Discs sub-mode 2 containing CD Text information

Option K: CD-Extra Discs containing video-related data in accordance with the MPEG Video System ISO DIS 11172 Standard

as selected by Licensee, manufactured and/or sold in accordance with the provisions hereof, which are duly reported and on which the royalties due hereunder are paid in accordance with the provisions of this Agreement.

Option(s):

A B C D E F
 G H I J K

(please tick any combination as appropriate)

Initial: 

1.23 "Licensed Patents" shall mean any one or more of the essential patents for the manufacture and/or sale of the various types of CD-Discs, as follows:

Category I

- (a) CD-Audio Discs and/or CD-Audio Maxi Singles, as listed in Annex A1;
- (b) CD-Audio Discs and/or CD-Audio Maxi Singles containing CD Text information, as listed in Annex A1 and Annex A7;

Category II

- (c) CD-ROM Discs mode 1, as listed in Annex A1 and Annex A2;
- (d) CD-ROM Discs mode 2, as listed in Annex A1 and Annex A3;
- (e) CD-ROM XA Discs sub-mode 1, as listed in Annex A1 and Annex A4;
- (f) CD-ROM XA Discs sub-mode 2, as listed in Annex A1 and Annex A5;

Category III

- (g) CD Extra Discs sub-mode 1, as listed in Annex A1, Annex A6 and Annex A4;
- (h) CD Extra Discs sub-mode 2, as listed in Annex A1, Annex A6 and Annex A5;
- (i) CD Extra Discs sub-mode 1 containing CD Text information, as listed in Annex A1, Annex A6, Annex A4 and Annex A7;
- (j) CD-Extra Discs sub-mode 2 containing CD Text information, as listed in Annex A1, Annex A6, Annex A5 and Annex A7;
- (k) CD-Extra Discs containing video-related data in accordance with the MPEG Video System ISO DIS 11172 Standard, as listed in Annex A1, Annex A6, Annex A4 or Annex A5 as well as Annex A8.

The term "essential" as used in relation to patents in this Agreement shall refer to patents, the use of which is necessary (either directly or as a practical matter) for compliance with the Standard Specifications defining the relevant CD System(s).

Philips has commissioned an independent patent expert to review the European, Japanese and US patents listed as essential in Annexes A1, A2, A3, A4, A5, A6, A7 and A8 in order to confirm the essentiality of such patents. In the event that such independent patent expert would find that any of the patents does not qualify as essential as defined in this Agreement, Philips will delete such patent (as well as the equivalent corresponding patents) from the relevant Annex and such patent will be put on a list of non-essential patents. Notwithstanding such deletion, Licensee shall retain the right to continue the use of such deleted patent(s) in accordance with the provisions of this Agreement, without any additional payment, unless Licensee explicitly notifies Philips in writing of its decision to waive such right.

In the event that Philips or Sony (or any of their respective Associated Companies) would have additional patents relevant to CD-Audio Discs (except for CD Text information and other than patents acquired from third parties after the date of January 1, 1983), CD-ROM Discs (other than patents acquired from third parties after the date of July 1, 1986), CD Extra Discs (other than patents acquired from third parties after the date of January 1, 1996) or the CD Text mode of CD-Discs, excluding CD-ROM Discs, (other than patents acquired from third parties after the date of October 1, 1996) in their respective patent portfolios which are essential to the manufacture, sale or other disposal of CD-Discs and which have a filing date or are entitled to a priority date prior to either January 1, 1983 for CD-Audio Discs, July 1, 1986 for CD-ROM Discs, January 1, 1996 for CD Extra Discs or October 1, 1996 for the CD Text mode of CD-Discs, excluding CD-ROM Discs, but which have not been listed as essential patents in the respective Annexes hereto, Philips will notify Licensee accordingly and such additional patents will be added to the Licensed Patents and such addition shall not affect the provisions of this Agreement, including without limitation, the duration of this Agreement as specified in Clause 12.1 and the duration of the grant-back undertakings on the part of Licensee pursuant to Clause 2. Any patents as may be added as essential patents to any of the respective Annexes hereto, will similarly be subject to the review by the independent patent expert in accordance with the preceding paragraph.

The patent lists provided to Licensee upon execution of this Agreement are subject to change in accordance with the provisions of this Agreement. With regard to the rights granted to Licensee hereunder, the patent lists published by Philips on its website (www.licensing.philips.com) or otherwise communicated by Philips to Licensee after the date of execution hereof shall prevail over the lists provided to Licensee upon the execution of this Agreement.

- 1.24 "Associated Company" shall mean any one or more business entities (1) owned or controlled by Philips, Sony or Licensee, (2) owning or controlling Philips, Sony or Licensee, or (3) owned or controlled by the business entity owning or controlling Philips, Sony or Licensee at the material time. For the purposes of this definition a business entity shall be deemed to own and/or to control another business entity if more than 50% (fifty per cent) of the voting stock of the latter business entity, ordinarily entitled to vote in the election of directors, (or, if there is no such stock, more than 50% (fifty per cent) of the ownership of or control in the latter business entity) is held by the owning and/or controlling business entity.
- 1.25 "Territory" shall mean the geographic area known as the United States of America, its territories and possessions.

2. Grant of Rights

- 2.1 For the term of this Agreement and subject to the provisions hereof, Philips hereby grants to Licensee a non-exclusive, non-transferable license under the Licensed Patents (listed in the relevant Annex(es)) to manufacture Licensed Products as selected by Licensee pursuant to the Options of Clause 1.22 within the Territory in accordance with the relevant CD Standard Specifications and to sell or otherwise dispose of such Licensed Products so manufactured in all countries of the world.
- 2.2 Philips, also on behalf of Sony, further agrees, for as long as this Agreement is in force and effect and Licensee is in full compliance with its obligations under this Agreement, to grant Licensee upon Licensee's request, a non-exclusive, non-transferable license, either by means of a sub-license arrangement or by means of individual licenses from Philips and/or Sony respectively, on reasonable, non-discriminatory conditions, to manufacture Licensed Products in the Territory and to sell or otherwise dispose of Licensed Products so manufactured in all countries of the world, under any patents not yet licensed hereunder and which are essential to the manufacture, sale or other disposal of Licensed Products, for which Philips, Sony and/or their respective Associated Companies may hereafter acquire from third parties the right to grant licenses. It is acknowledged and agreed that in respect of the patents as may be licensed pursuant to this Clause 2.2, additional royalties may have to be paid over and above the royalties specified in Clause 5.2.
- 2.3 Philips, also on behalf of Sony, further agrees, for as long as this Agreement is in force and effect and Licensee is in full compliance with its obligations under this Agreement, to grant Licensee upon Licensee's request as well as to those of Licensee's Associated Companies who so request, a non-exclusive, non-transferable license, on reasonable, non-discriminatory conditions, either by means of a sub-license arrangement or by means of individual licenses from Philips and/or Sony respectively, to manufacture CD-Players and to sell or otherwise

dispose of such CD-Players so manufactured in all countries of the world under any and all present and future patents essential to the manufacture, sale or other disposal of CD-Players for which Philips, Sony and/or their respective Associated Companies have or may hereafter acquire the right to grant licenses.

2.4 In consideration of the undertakings set forth in Clauses 2.1, 2.2 and 2.3 and similar undertakings by third party licensees of Philips or any of its Associated Companies and without prejudice to the provisions of Clause 12, Licensee agrees to grant to Philips, Sony and their respective Associated Companies and to other third parties who have entered or will enter into a license agreement with Philips concerning CD-Discs, non-exclusive, non-transferable licenses, on reasonable, non-discriminatory conditions comparable to those set forth herein, to manufacture, sell or otherwise dispose of CD-Discs, as correspond with the Category of CD-Discs from which Licensee has made a selection pursuant to the Options of Clause 1.22, under any and all present and future patents, for which Licensee or its Associated Companies have or may hereafter acquire the right to grant licenses and which are essential to the manufacture, sale or other disposal of such CD-Discs and which patents were first filed or are entitled to a priority date in any country of the world prior to the date of termination of this Agreement. The duration of such licenses shall be a period ending at the expiration date of the last to expire patent of Licensee or the relevant Associated Company of Licensee, essential to the Category of CD-Discs from which Licensee has made a selection pursuant to the Options of Clause 1.22. For the avoidance of doubt, the undertaking set out in this Clause 2.4 shall only apply to those companies which accept or have accepted a similar undertaking as given by Licensee in this Clause 2.4 and only in respect of those Categories of CD-Discs from which both Licensee and such companies have made a selection.

2.5 In addition, in consideration of the undertakings set forth in Clauses 2.1, 2.2, 2.3 and 2.4 and similar undertakings by third party licensees of Philips or any of its Associated Companies and without prejudice to the provisions of Clause 12, Licensee agrees to grant to Philips, Sony and their respective Associated Companies and to other third parties who have entered or will enter into a license agreement with Philips concerning CD-Players, non-exclusive, non-transferable licenses, on reasonable, non-discriminatory conditions, to manufacture, sell or otherwise dispose of CD-Players capable of playing CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22 under any and all present and future patents, for which Licensee or its Associated Companies have or may hereafter acquire the right to grant licenses and which are essential to the manufacture, sale or other disposal of such CD-Players and which patents were first filed or are entitled to a priority date in any country of the world prior to the date of termination of this Agreement. The duration of such licenses shall be a period ending at the expiration date of the last to expire patent of Licensee or the relevant Associated Company of Licensee, essential to CD-Players capable of playing CD-Discs, as correspond with the selection made by Licensee pursuant to the Options of Clause 1.22. For the avoidance of doubt, the undertaking set out in this Clause 2.5 shall only apply to those companies which accept or have accepted a similar undertaking as given by Licensee in this Clause 2.5.

2.6 Philips undertakes that it will offer, at the request of any of Licensee's Associated Companies to any such Associated Company, a non-exclusive and non-transferable license under the Licensed Patents on reasonable and non-discriminatory conditions comparable to those set forth herein, to manufacture, sell or otherwise dispose of CD-Discs.

2.7 IT IS EXPRESSLY ACKNOWLEDGED AND AGREED THAT:

- (I) THE LICENSES AND LICENSE UNDERTAKINGS HEREIN CONTAINED WITH RESPECT TO THE MANUFACTURE OF LICENSED PRODUCTS DO NOT EXTEND TO MASTER RECORDING MACHINES, EQUIPMENT OR METHODS FOR THE REPLICATION OF DISCS, NOR TO THE MANUFACTURE OF MATERIALS OR REPRODUCTION RIGHTS FOR INFORMATION (SUCH AS AUDIO, VIDEO, TEXT AND/OR DATA-RELATED INFORMATION), CONTAINED ON DISCS TO BE PLAYED BACK ON A PLAYER. FURTHER, THE LICENSE UNDERTAKINGS WITH RESPECT TO THE MANUFACTURE OF PLAYERS DO NOT EXTEND TO THE MANUFACTURE OF COMPONENTS FOR PLAYERS (INCLUDING BUT NOT LIMITED TO SEMICONDUCTOR DEVICES, INTEGRATED CIRCUITS, LASERS, MOTORS AND LENSES), EXCEPT FOR CIRCUITRY AND/OR SYSTEM ASPECTS SPECIFIC TO THE CD SYSTEMS (AND SIMILAR OPTICAL READ-OUT SYSTEMS);
- (II) THE RIGHTS AND LICENSES GRANTED UNDER THIS AGREEMENT DO NOT EXTEND TO ANY COMBINATION OF ONE OR MORE LICENSED PRODUCTS OR PLAYERS WITH ANY OTHER ELEMENTS, PRODUCTS, SYSTEMS, EQUIPMENT OR SOFTWARE OTHER THAN THE COMBINATION OF A LICENSED PRODUCT AND A CD PLAYER.

3. Standard Specifications, Technical Information and Support

- 3.1 Upon receipt of the payment provided for in Clause 5.1 and the payment provided for in Clause 5.12, Philips shall make available to Licensee for use by Licensee in accordance with the provisions hereof, a copy of the then current version of the respective CD Standard Specifications, as correspond with the Licensed Products as selected by Licensee pursuant to the Options of Clause 1.22, together with such other information and support as Philips considers necessary for the interpretation and/or the correct application of the relevant CD Standard Specifications.
- 3.2 Licensee shall be notified in writing of any addition or modification to any of the relevant CD Standard Specifications and shall be provided with relevant information in connection therewith.
- 3.3 Philips and Licensee undertake to keep each other generally informed of developments or initiatives which may have an impact on the relevant CD Standard Specifications.

4. Procurement from other Licensed Manufacturers

- 4.1 The rights granted to Licensee pursuant to Clause 2 and the right to use the information pursuant to Clause 3, include the right for Licensee to have Licensed Products made for it by third party manufacturers, duly licensed by Philips under an agreement similar to this

Agreement, provided that Licensee will properly identify such third party manufacturer in the royalty reporting forms to be submitted to Philips hereunder, together with the quantities of Licensed Products so purchased.

Conversely, Licensee shall refrain from purchasing or selling CD-Discs manufactured by any third party not licensed by Philips, where such purchase or sale would constitute an act of infringement of any of the Licensed Patents.

5. Royalties, Reports and Payments

- 5.1 In consideration of the rights granted by Philips and the information to be provided by Philips hereunder, Licensee shall, upon execution of this Agreement, make a non-refundable, non-recoupable payment of US\$ 25,000 (twenty-five thousand US Dollars) to Philips.
- 5.2 In further consideration of the rights granted hereunder by Philips to Licensee, Licensee shall pay to Philips a royalty for each CD-Disc sold or otherwise disposed of by Licensee, any of Licensee's Associated Companies or an agent of Licensee, in any country where at least one of the Licensed Patents essential to the type(s) of CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22 exists.

These royalties shall amount to:

- (a) US\$ 0.03 (three US Dollar cents) for each CD-Audio Disc with an outer diameter greater than 90 mm, if applicable, containing CD Text information;
- (b) US\$ 0.02 (two US Dollar cents) for each CD-Audio Disc with an outer diameter smaller than 90 mm, if applicable, containing CD Text information;
- (c) US\$ 0.027 (two point seven US Dollar cents) for each CD-Audio Maxi-Single, if applicable, containing CD Text information;
- (d) US\$ 0.03 (three US Dollar cents) for each CD-ROM Disc (irrespective of the type) with an outer diameter greater than 90 mm;
- (e) US\$ 0.02 (two US Dollar cents) for each CD-ROM Disc (irrespective of the type) with an outer diameter smaller than 90 mm;
- (f) US\$ 0.045 (four and a half US Dollar cents) for each CD Extra Disc (irrespective of the type) with an outer diameter greater than 90 mm, if applicable, containing CD Text information; and
- (g) US\$ 0.03 (three US Dollar cents) for each CD Extra Disc (irrespective of the type) with an outer diameter smaller than 90 mm, if applicable, containing CD Text information,

said rates hereinafter referred to as "Standard Rates".

With respect to CD-Discs sold on or after July 1, 2002, provided that:

- a) Licensee is in full compliance with its obligations under this Agreement; and
- b) Licensee has submitted an audit statement by its external auditors, who shall be certified public auditors as specified in the Audit Guidelines attached hereto as Annex B2, confirming that the quarterly royalty statements as submitted by Licensee to

Philips for the last twelve quarterly periods, are true, complete and accurate in every respect; and such statement must meet the requirements as specified in the Audit Guidelines;

and subject to the provisions of Clause 6, Licensee may apply the following royalty rates:

- (a) US\$ 0.0175 (one and three quarters of a US Dollar cent) for each CD-Audio Disc with an outer diameter greater than 90 mm, if applicable, containing CD Text information;
- (b) US\$ 0.0115 (one and fifteen hundredths of a US Dollar cent) for each CD-Audio Disc with an outer diameter smaller than 90 mm, if applicable containing CD Text information;
- (c) US\$ 0.0155 (one and fifty-five hundredths of a US Dollar cent) for each CD-Audio Maxi-Single, if applicable, containing CD Text information;
- (d) US\$ 0.0175 (one and three quarters of a US Dollar cent) for each CD-ROM Disc (irrespective of the type) with an outer diameter greater than 90 mm;
- (e) US\$ 0.0115 (one and fifteen hundredths of a US Dollar cent) for each CD-ROM Disc (irrespective of the type) with an outer diameter smaller than 90 mm;
- (f) US\$ 0.0175 (one and three quarters of a US Dollar cent) for each CD Extra Disc (irrespective of the type) with an outer diameter greater than 90 mm, if applicable, containing CD Text information; and
- (g) US\$ 0.0115 (one and fifteen hundredths of a US Dollar cent) for each CD Extra Disc (irrespective of the type) with an outer diameter smaller than 90 mm, if applicable, containing CD Text information,

said rates hereinafter referred to as "Compliance Rates".

In the event that Licensee fails to comply at any time with any of its obligations under this Agreement, the Standard Rates, as applicable, shall apply to Licensee's manufacture and sale of CD-Discs instead of the Compliance Rates, as applicable, with immediate effect from the first day of the reporting period to which the occurrence of non-compliance relates until such moment that Philips confirms in writing to Licensee that Licensee's non-compliance has been remedied in full.

A CD-Disc shall be considered sold when invoiced or, if not invoiced, when delivered to a party other than Licensee.

For the avoidance of doubt, Philips confirms that it shall not assert any of the Licensed Patents against Licensee, nor against any of Licensee's customers or subsequent buyers of CD-Discs manufactured and sold by Licensee, prior to the day on which such CD-Discs are to be reported pursuant to the provisions of this Agreement, nor, provided that such CD-Discs have been duly reported in accordance with the provisions of this Agreement, prior to the day when payment of royalties in respect of CD-Discs manufactured and sold by Licensee is due in accordance with the provisions of this Agreement.

No royalties shall be payable for CD-Discs purchased by Licensee on a "have made" basis in accordance with Clause 4 from third party manufacturers, duly licensed by Philips, provided

that Licensee can demonstrate to Philips' satisfaction, that such third party manufacturer has paid to Philips the royalties due in respect of such CD-Discs.

For the avoidance of doubt, in the event that the manufacture by Licensee of CD-Discs within the Territory would not infringe any of the Licensed Patents, Licensee shall have no obligation to report and pay royalties in respect of CD-Discs manufactured within the Territory and which are sold for final use within the Territory or imported (either by Licensee or by a third party) into a country where no Licensed Patents exist, for final use in such country.

5.3 Within 30 days following 31 March, 30 June, 30 September and 31 December of each year during the term of this Agreement, Licensee shall submit to Philips (even in the event that no sales have been made) a written statement in the form as attached hereto as Annex B1 ("Royalty Reporting Form") (or in such other form as may be subsequently communicated by Philips to Licensee), signed by a duly authorized officer on behalf of Licensee, setting forth with respect to the preceding quarterly period:

- (1) the quantities of CD-Discs manufactured by Licensee on which royalties are due in accordance with the provisions of this Agreement, specified per individual type of CD-Disc;
- (2) the quantities of CD-Discs corresponding with the CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22, purchased from other licensed manufacturers in accordance with the provisions of Clause 4, on which royalties are due in accordance with the provisions of the CD Disc patent license agreement of said other manufacturers, specified per individual type of CD-Disc and per such third party manufacturer who shall be named in the Royalty Reporting Form;
- (3) on a per-country basis, specifying per individual type of CD-Disc:
 - (a) the quantities of CD-Discs on which royalties are due in accordance with the provisions of this Agreement, sold or otherwise disposed of, specifying the identity of the buyers and the trademarks used on or in connection with the CD-Discs;
 - (b) the quantities of CD-Discs on which royalties are due in accordance with the provisions of this Agreement, sold to other manufacturers, duly licensed by Philips, specifying the identity of such other manufacturers and the trademarks used on or in connection with the CD-Discs;
- (4) a computation of the royalties due under this Agreement.

Licensee shall pay the royalties due to Philips within 30 days after the end of each quarterly period in US Dollars to a bank account, as specified by Philips.

5.4 In the event that Licensee fails to submit to Philips a Royalty Reporting Form for any royalty reporting period within 30 days from the end of the relevant reporting period in accordance with the provisions of Clause 5.3, Licensee shall be obliged to pay to Philips within 30 days

after the end of the relevant quarterly period for which the Royalty Reporting Form was not submitted, an estimated royalty (hereinafter referred to as an "Advance"), being an amount equal to the highest amount of royalties due for any royalty reporting period over the preceding eight royalty reporting periods (or over all preceding royalty reporting periods if fewer than eight). Such payment shall be treated as a non-refundable advance, primarily against the royalties and interest for the relevant royalty reporting period and then, if any sum remains, against any future royalties or other payments payable by Licensee hereunder. Licensee acknowledges and agrees that any Advance shall not be due by way of penalty, but that such payment shall constitute a non-refundable advance as aforesaid. For the avoidance of doubt, such payment shall be payable without any further notice or action by Philips, legal or otherwise, and shall take effect by virtue of the failure to submit a Royalty Reporting Form on time. The payment by Licensee of an Advance shall not affect Licensee's obligation to submit a Royalty Reporting Form and shall be without prejudice to any other rights or remedies of Philips, including, without limitation, Philips' right to charge 2% (two per cent) interest per month on overdue payments (including overdue payments of the Advance), and Philips' right to terminate this Agreement in accordance with its provisions. The Advance will not be set off against other sums due to Philips until a Royalty Reporting Form has been submitted in respect of the relevant royalty reporting period. In respect of any royalty reporting period for which an Advance has been paid and the Royalty Reporting Form subsequently submitted, Philips will first set off against the Advance all royalties and interest due for that period. Any remaining sum from the Advance will be set off against further royalty, interest or Advance payments due to Philips hereunder (if any).

5.5 Licensee shall submit to Philips, once per calendar year, an audit statement by its external auditors, who shall be certified public auditors as specified in the Audit Guidelines attached hereto as Annex B2, confirming that the quarterly royalty statements as submitted by Licensee to Philips for the last four quarterly periods, are true, complete and accurate in every respect. Such statement must meet the requirements as specified in the Audit Guidelines and shall be submitted to Philips within 90 days following the end of Licensee's financial year. The correctness of this audit statement may be verified by Philips by means of a work paper review, conducted by one of the certified public auditors selected by Philips. Licensee shall procure that its auditors provide full cooperation with said work paper review. Notwithstanding this audit statement, Philips reserves the right to inspect the books and records of Licensee from time to time in accordance with Clause 5.10.

The requirement to submit an audit statement by its external auditors as contained in the preceding paragraph only applies to those licensees who are entitled to apply the Compliance Rates in accordance with the provisions of this Agreement. Licensees who are entitled to apply the Compliance rates in accordance with the provisions of this Agreement and who have submitted to Philips a statement signed by a duly authorized officer of Licensee confirming that their annual production of CD-Discs is inferior to 5 million units shall be exempted from the requirement to submit the audit statement referred to in the preceding paragraph.

5.6 Within 30 days following the expiration or termination of this Agreement, Licensee shall submit to Philips a certified report on the number of CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22, on which royalties are due in accordance with the provisions of this Agreement, in stock at the time of expiration or termination of this

Agreement. Royalties, calculated in accordance with Clause 5.2 and Clause 5.12, shall be due and payable for all such CD-Discs manufactured prior to, but remaining in stock with Licensee on the date of expiration or termination of this Agreement. For the avoidance of doubt, this Clause 5.6 shall be without prejudice to the provisions of Clause 12.6.

- 5.7 Any payment under this Agreement which is not made on the date(s) specified herein, shall accrue interest at the rate of 2% (two per cent) per month (or part thereof) or the maximum amount permitted by law, whichever is lower.
- 5.8 All payments to Philips under this Agreement shall be made by transfer in US Dollar or in such other currency, convertible in the sense of Articles VIII and XIX of the Articles of Agreement of the International Monetary Fund, as designated by Philips. The rate of exchange for converting the currency (if other than US Dollar) of the Territory shall be the telegraphic transfer selling rate of the designated currency as officially quoted in the Territory by the officially authorized foreign exchange bank for payment of currency transactions on the day that the amount is due and payable.
- 5.9 All costs, stamp duties, taxes and other similar levies arising from or in connection with the conclusion of this Agreement shall be borne by Licensee. In the event that the government of a country imposes any taxes on payments by Licensee to Philips hereunder and requires Licensee to withhold such tax from such payments, Licensee may deduct such tax from such payments. In such event, Licensee shall promptly provide Philips with tax receipts issued by the relevant tax authorities so as to enable Philips to support a claim for credit against income taxes which may be payable by Philips and/or its Associated Companies in The Netherlands and to enable Philips to document, if necessary, its compliance with tax obligations in any jurisdiction outside The Netherlands.
- 5.10 In order that the royalty statements provided for in this Clause 5 may be verified, Licensee shall keep complete and accurate books and records relating to the manufacture and sale or other disposal of the CD-Discs as correspond with the CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22 for which at least one Licensed Patent remains in force in any country of the world and shall keep such books and records available for inspection for a period of 5 years following the sale or other disposal.

Philips shall have the right to inspect the books and records of Licensee from time to time, in order to verify the correctness of the aforementioned royalty statements. Any such inspection shall take place no more than once per calendar year and shall be conducted by a certified public auditor appointed by Philips. Philips shall give Licensee written notice of such inspection at least 7 days prior to the inspection. Licensee shall willingly co-operate and provide all such assistance in connection with such inspection as Philips and/or the auditor may require. The inspection shall be conducted at Philips' own expense, provided that in the event that Licensee has failed to submit royalty statements and/or yearly written statement(s) by its external auditors, as provided for in Clause 5.3 and Clause 5.5, in respect of the period to which the inspection relates or in the event that any discrepancy or error exceeding 3% (three per cent) of the monies actually due is established, in addition to Licensee's obligation promptly to make up for such underpayment, the cost of the inspection shall be borne by Licensee, without prejudice to any other claim or remedy as Philips may have under this Agreement or under applicable law.

Philips' right of inspection as set out in this Clause 5.10 shall survive termination or expiration of this Agreement.

- 5.11 Without prejudice to the provisions of Clause 5.10, Licensee shall provide all relevant additional information as Philips may reasonably request from time to time, so as to enable Philips to ascertain which products manufactured, sold or otherwise disposed of by Licensee are subject to the payment of royalties to Philips hereunder, the patents which have been used in connection with such products, and the amount of royalties payable.
- 5.12 As a condition precedent to the entry into force of this Agreement, Licensee shall submit to Philips a royalty statement in respect of those CD-Discs as correspond with the CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22 and in which any one or more of the essential Licensed Patents existing at the time is (are) used, manufactured and sold or otherwise disposed of by Licensee before the Effective Date (as hereinafter defined) of this Agreement in accordance with the provisions of Clause 5.3.

Within 7 days following the execution of this Agreement, Licensee shall pay to Philips the royalties for such CD-Discs, calculated by applying the royalty rates of:

- (a) US\$ 0.03 (three US Dollar cents) for each CD-Audio Disc with an outer diameter greater than 90 mm, if applicable, containing CD Text information or each CD-ROM Disc (irrespective of the type) with an outer diameter greater than 90 mm;
- (b) US\$ 0.02 (two US Dollar cents) for each CD-Audio Disc with an outer diameter smaller than 90 mm, if applicable, containing CD Text information or each CD-ROM Disc (irrespective of the type) with an outer diameter smaller than 90 mm;
- (c) US\$ 0.027 (two point seven US Dollar cents) for each CD-Audio Maxi-Single, if applicable, containing CD Text information;
- (d) US\$ 0.048 (four point eight US Dollar cents) for each CD Extra Disc, if so selected by Licensee in Schedule I to the Enhanced Music CD Disc License Agreement, if applicable, containing CD Text information;
- (e) US\$ 0.045 (four and a half US Dollar cents) for each CD Extra Disc (irrespective of the type) with an outer diameter greater than 90 mm, if applicable, containing CD Text information; and
- (f) US\$ 0.03 (three US Dollar cents) for each CD Extra Disc (irrespective of the type) with an outer diameter smaller than 90 mm, if applicable, containing CD Text information.

The above rates are effective for CD-Discs sold after June 30, 2000. CD-Audio Discs, if applicable, containing CD Text information and CD-ROM Discs (irrespective of the type) having an outer diameter greater than 90 mm sold prior to July 1, 1998 are subject to a royalty rate of US\$ 0.045; if sold after June 30, 1998 and prior to July 1, 1999 such Discs are subject to a royalty rate of US\$ 0.04; and if sold after June 30, 1999 and prior to July 1, 2000 such Discs are subject to a royalty rate of US\$ 0.035.

The royalty statement shall similarly be subject to Philips' right of audit as set out in Clause 5.10. Within 45 days following the execution of this Agreement, a Licensee who requests to

be allowed to apply the Compliance Rates in accordance with Clause 5.2 shall submit to Philips an audit statement by its external auditors, who shall be certified public auditors, confirming that this royalty statement is true, complete and accurate in every respect. Such statement must meet the requirements as specified in the Audit Guidelines.

6. Manufacturing Equipment Identification System

- 6.1 Upon signing of this Agreement, Licensee shall submit to Philips an overview of its manufacturing equipment currently used, or which is technically capable of being used for the manufacture of CD-Discs. Further, upon any acquisition, transfer or disposal of manufacturing equipment used, or which is technically capable of being used for the manufacture of CD-Discs, Licensee shall submit to Philips details of any such adjustment(s) to its manufacturing equipment. Further, Licensee shall submit to Philips an overview containing all adjustments to its manufacturing equipment during the preceding year, together with and confirmed by the audit statement referred to in Clause 5.5. Such overview shall be in the form as attached hereto as Annex B3 ("Manufacturing Equipment List"), signed by a duly authorized officer on behalf of Licensee.
- 6.2 The Compliance Rates referred to in Clause 5.2 shall only apply to CD-Discs manufactured by Licensee using manufacturing equipment properly identified in the Manufacturing Equipment List and shall be conditional upon Licensee submitting to Philips the audit statement meeting the requirements as set out in the Audit Guidelines, in accordance with the provisions in Clause 5.5. In the event that Licensee puts into use newly acquired manufacturing equipment which has been used, or which was technically capable of being used for the manufacture of CD-Discs prior to the acquisition by Licensee, the Compliance Rates shall only apply if Licensee confirms to Philips that the newly acquired manufacturing equipment originates from and has been used, or was technically capable of being used by a company which was properly licensed by Philips for the manufacture of CD-Discs at the time of the acquisition of the newly acquired manufacturing equipment by Licensee or that the equipment concerned has not been used by any other entity or person directly or indirectly under the same ultimate control as Licensee. In the event that Licensee is unable to comply with the requirements under this Clause 6, the Standard Rates shall apply to Licensee's manufacture and sale of CD-Discs instead of the Compliance Rates.

7. Most Favourable Rate

- 7.1 In the event that licenses under the patents referred to in Clause 2 are granted by Philips for CD-Discs, as correspond with the selection made by Licensee pursuant to the Options of Clause 1.22, to a third party under substantially similar conditions, but at a royalty rate more favourable than the rate payable by Licensee under this Agreement, Licensee shall be entitled to the same royalty rate as applicable to such third party, provided always that this right of Licensee shall not apply in respect of cross-license agreements or other agreements providing for a consideration which is not exclusively based on the payment of royalties and further provided that this right of Licensee shall not apply in respect of licenses or other arrangements made pursuant to a court decision or the settlement of a

dispute between Philips and a third party, irrespective of the nature of such dispute, the terms of the court decision or the settlement terms.

8. No Warranty and Indemnification

- 8.1 Whereas Philips has made efforts to ensure that the information to be supplied by it hereunder is complete and accurate, Philips makes no representation or warranty as to the completeness or accuracy of such information, nor with respect to the ability of Licensee to achieve interchangeability with respect to CD-Discs through the use of such information.
- 8.2 It is acknowledged by Licensee that third parties may own industrial and/or intellectual property rights in the field of CD-Discs. Philips and Sony make no warranty whatsoever that the manufacture, sale or other disposal of CD-Discs or the use of information supplied by Philips hereunder, does not infringe or will not cause infringement of any industrial and/or intellectual property rights other than the Licensed Patents. Philips, Sony and their respective Associated Companies shall be fully indemnified and held harmless by Licensee from and against any and all third party claims in connection with CD-Discs manufactured, sold or otherwise disposed of by Licensee.

9. Confidentiality

- 9.1 Licensee shall at all times maintain strict confidentiality with regard to the CD Standard Specifications and shall not disclose same to any third party without the prior written consent of Philips.
- 9.2 Without prejudice to Clause 9.1, Licensee shall, during the term of this Agreement as specified in Clause 12.1 and for a period of 3 years thereafter, not disclose to any third party any information acquired from Philips or any of Philips' Associated Companies in connection with this Agreement, or use such information for any purpose other than the manufacture and disposal of CD-Discs in accordance with the provisions of this Agreement. This obligation shall not apply to the extent information so acquired:
 - (a) was known to Licensee prior to the date on which such information was acquired from Philips or any of Philips' Associated Companies, as shown by records of Licensee or otherwise demonstrated to Philips' satisfaction;
 - (b) is or has become available to the public through no fault of Licensee;
 - (c) was or is received from a third party who was under no confidentiality obligation in respect of such information.

In protecting information acquired from Philips or any of Philips' Associated Companies, Licensee shall take all necessary measures and precautions, including but not limited to measures requiring its present and future employees to give suitable undertakings of secrecy both for the period of their employment and thereafter, and shall protect such information in

the same manner and with the same degree of care (but no less than a reasonable degree of care) as Licensee applies to its own information of a confidential nature.

- 9.3 The obligations concerning confidentiality contained in Clause 9.1 and Clause 9.2 shall survive termination of this Agreement.
- 9.4 Philips shall, during the term of this Agreement as specified in Clause 12.1 and for a period of 3 years thereafter, not disclose to any third party any confidential information obtained in connection with Clause 5.3, Clause 5.5, Clause 5.6, Clause 5.12 and/or Clause 6, except that Philips may disclose such information to its external auditors, legal representatives and to the competent courts to the extent this is necessary for Philips in connection with the enforcement of its rights hereunder. Further, Philips shall not use such information for other purposes than to verify Licensee's compliance with its royalty reporting and payment obligations as provided in this Agreement and to enforce Philips' rights hereunder. Philips' obligations set out in this paragraph shall not apply to information referred to in sections (a), (b) and/or (c) of Clause 9.2.

10. Logo

- 10.1 For the term of this Agreement and subject to the full and timely performance and observance by Licensee of all its undertakings and obligations hereunder, Licensee shall be entitled to use on the Licensed Products as well as in advertisements and sales literature with respect to Licensed Products sold by Licensee, a logo (hereinafter referred to as "the Logo") in accordance with the instructions laid down in the CD Logo Guide which shall be made available to Licensee together with the relevant CD Standard Specifications.
- 10.2 Licensee acknowledges and agrees that Philips makes no warranty whatsoever that any use of the Logo does not infringe or will not cause infringement of any third party intellectual property rights.

11. No Assignment

- 11.1 This Agreement shall inure to the benefit of and be binding upon each of the parties hereto and their respective assignees. It may not be assigned in whole or in part by Licensee without the prior written consent of Philips.

12. Term and Termination

- 12.1 This Agreement shall enter into force on the "Effective Date", being the date first written above. In the event that validation of this Agreement is required by the competent governmental authorities, the Effective Date shall be the date of such validation. Unless terminated earlier in accordance with the provisions of this Clause 12, this Agreement shall remain in force until the expiration date of the last to expire Licensed Patent in the Territory essential to CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22.

Upon the expiration of all Licensed Patents in the Territory essential to CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22, Philips shall not assert any of the essential Licensed Patents against Licensee or Licensee's customers, provided that Licensee has entered into a contractual arrangement with Philips providing for the situation that, although such CD-Discs manufactured by Licensee are no longer covered by any of the essential Licensed Patents in the Territory, such CD-Discs are being imported by Licensee or a third party into one or more other countries in which one or more of said essential Licensed Patents subsist.

- 12.2 Without prejudice to the provisions of Clause 12.3 through Clause 12.6, each party may terminate this Agreement at any time by means of a written notice to the other party in the event that the other party fails to perform any obligation under this Agreement and such failure is not remedied within 30 days after receipt of a notice specifying the nature of such failure and requiring it to be remedied. Such right of termination shall not be exclusive of any other remedies or means of redress to which the non-defaulting party may be lawfully entitled and all such remedies shall be cumulative. Any such termination shall not affect any royalty or other payment obligations under this Agreement accrued prior to such termination.
- 12.3 Philips may terminate this Agreement forthwith by means of a written notice to Licensee in the event that a creditor or other claimant takes possession of, or a receiver, administrator or similar officer is appointed over any of the assets of Licensee, or in the event that Licensee makes any voluntary arrangement with its creditors or becomes subject to any court or administration order pursuant to any bankruptcy or insolvency law.
- 12.4 Additionally, insofar as legally permitted, Philips may terminate this Agreement at any time by means of a written notice to Licensee in case Licensee or an Associated Company of Licensee has been found liable by a competent court or administrative authority to have committed an act of copyright piracy.
- 12.5 Philips shall have the right to terminate this Agreement forthwith or to revoke the license granted under any of Philips', Sony's or any of their respective Associated Companies' patents in the event that Licensee or any of its Associated Companies brings a claim of infringement of any of Licensee's or any of Licensee's Associated Companies' essential patents relating to CD-Discs or CD-Players against Philips, Sony or any of their respective Associated Companies and Licensee refuses to license such patents on fair and reasonable conditions.
- 12.6 Upon the termination of this Agreement by Philips for any reason pursuant to Clause 12.2 through Clause 12.5, Licensee shall immediately cease the manufacture, sale or other disposal of CD-Discs in which any one or more of the Licensed Patents are used. Further, upon such termination, any and all amounts outstanding hereunder shall become immediately due and payable.
- 12.7 All provisions of this Agreement which are intended to survive (whether express or implied) the expiry or termination of this Agreement, shall so survive.

13. Miscellaneous

- 13.1 Licensee acknowledges that Philips may make modifications to the wording of the standard version of the CD Disc Patent License Agreement in future. Licensee shall at all times have the option of entering into the latest version of the CD Disc Patent License Agreement as published by Philips on its website or otherwise communicated by Philips to Licensee after the Effective Date of this Agreement.
- 13.2 Any notice required under this Agreement to be sent by either party shall be given in writing by means of a letter, facsimile or electronic mail directed:

in respect of Licensee, to:

Optical Experts Manufacturing, Inc.
8500 South Tryon Street
Charlotte, NC 28273
Fax: +1 (704) 504-9877

in respect of Philips, to:

Koninklijke Philips Electronics N.V.
c/o Philips Intellectual Property & Standards - Legal Department
Building WAH-2
P.O. Box 220
5600 AE Eindhoven
The Netherlands
Fax: +31 40 2743489
with a copy to:

Philips Intellectual Property & Standards
P.O. Box 3001
345 Scarborough Road
Briarcliff Manor, NY 10510-8001
Fax: (914) 332-0615

or to such other address as may have been previously specified in writing by either party to the other.

- 13.3 This Agreement sets forth the entire understanding and agreement between the parties as to the subject matter hereof and supersedes and replaces all prior arrangements, discussions and understandings between the parties relating thereto. No variation of this Agreement shall be binding upon either party unless made in writing and signed by an authorized representative of each of the parties hereto.
- 13.4 Nothing contained in this Agreement shall be construed:
 - (a) as imposing on either party any obligation to instigate any suit or action for infringement of any of the patents licensed hereunder or to defend any suit or action brought by a third party which challenges or relates to the validity of any such

patents. Licensee shall have no right to instigate any such suit or action for infringement of any of the patents licensed by Philips hereunder, nor the right to defend any such suit or action which challenges or relates to the validity of any such patent licensed by Philips hereunder;

- (b) as imposing any obligation to file any patent application, to secure any patent or to maintain any patent in force;
- (c) as conferring any license or right to copy or imitate the appearance and/or design of any product of Philips, Sony or any of their respective Associated Companies;
- (d) as conferring any license to manufacture, sell or otherwise dispose of any product or device other than a Licensed Product.

13.5 Neither the failure nor the delay of either party to enforce any provision of this Agreement shall constitute a waiver of such provision or of the right of either party to enforce each and every provision of this Agreement.

13.6 Should any provision of this Agreement be finally determined void or unenforceable in any judicial proceeding, such determination shall not affect the operation of the remaining provisions hereof, provided that, in such event, Philips shall have the right to terminate this Agreement by means of a written notice to Licensee.

13.7 This Agreement shall be governed by and construed in accordance with the laws of The State of New York.

Any dispute between the parties hereto in connection with this Agreement (including any question regarding its existence, validity or termination) shall be submitted to any state or federal courts in The State of New York, provided always that, in case Philips is the plaintiff, Philips may, at its sole discretion, submit any such dispute either to the state or federal courts in the venue of Licensee's registered office, or to any of the state or federal courts in the Territory having jurisdiction. Licensee hereby irrevocably waives any objection to the jurisdiction, process and venue of any such court and to the effectiveness, execution and enforcement of any order or judgment (including, but not limited to, a default judgment) of any such court in relation to this Agreement, to the maximum extent permitted by the law of any jurisdiction, the laws of which might be claimed to be applicable regarding the effectiveness, enforcement or execution of such order or judgment.

AS WITNESS, the parties hereto have caused this Agreement to be signed on the date first written above.

KONINKLIJKE PHILIPS ELECTRONICS
N.V.

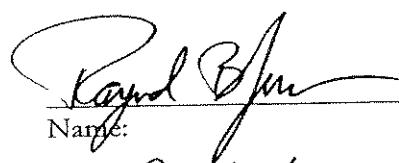


Name: H. SAKKERS

Title: BY PROXY

Date: MARCH 4, 2004

OPTICAL EXPERTS MANUFACTURING,
INC.



Name: Raymond B. Smith

Title: President

Date: 1/26/04

Annex A1 to the CD Disc Patent License Agreement
 Essential Philips and Sony patents relevant to CD Disc / CD-General part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
AR	Q 080007	-	285958	02-Jul-81	06-Jun-97	250649	06-Jun-12	Block N to K compact disc modulation code (EFM)
AR	Q 080009	-	285406	20-May-81	04-Jun-97	250648	04-Jun-12	Error correctable data transmission method
AT	Q 080007	-	81-A3107	14-Jul-81	25-Jan-89	404652	15-May-16	Block N to K compact disc modulation code (EFM)
AT	Q 080009	-	81-A2215	18-May-81	395794	25-Mar-93	395794	Error correctable data transmission method
BW	Q 080007	-	98-00033	21-Apr-98	02-Oct-02	BW/P/02/00035	21-Apr-18	Block N to K compact disc modulation code (EFM)
CA	Q 080007	-	381362	08-Jul-81	16-Sep-86	1211570	16-Sep-03	Block N to K compact disc modulation code (EFM)
US	N 006493	D	06/858550	23-Apr-86	26-Nov-91	5068846	26-Nov-08	Video disc with disc body acting as protection
US	P15.688	-	890316	30-Mar-82	19-Apr-94	5305301	19-Apr-11	Optical readable carriers

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list
 Page 1 of 1
 Version date : 21 July 2003

Annex A2 to the CD Disc Patent License Agreement
 Essential Philips and Sony patents relevant to CD-Disc / CD-ROM Mode 1 part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	PUBLICATION DATE	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
AT	Q 083025	84-A2769	29-Aug-84			29-Dec-97	403223	15-Apr-15	Framing of data-blocks on CD-ROM
AT	Q 084008	85200431.6	20-Mar-85	0156440-A2		24-Jan-90	E49335	20-Mar-05	CD-ROM Error Correction System A
AU	Q 083025	84-32584	31-Aug-84			26-Mar-91	603761	31-Aug-04	Framing of data-blocks on CD-ROM
AU	Q 084008	85-40240	22-Mar-85			29-Sep-89	584883	22-Mar-05	CD-ROM Error Correction System A
BE	Q 084008	85200431.6	20-Mar-85	0156440-A2		24-Jan-90	0155440	20-Mar-05	CD-ROM Error Correction System A
BR	Q 083025	P18404319.9	29-Aug-84			17-Apr-02	P18404319.9	29-Aug-04	Framing of data-blocks on CD-ROM
BR	Q 084008	P18501277.7	21-Mar-85			26-Oct-93	P18501277	21-Mar-05	CD-ROM Error Correction System A
CA	Q 084008	477183	21-Mar-85			13-Jun-89	1255771	13-Jun-06	CD-ROM Error Correction System A
CA	S84P0216	459869	27-Apr-84			26-Apr-86	1235812	26-Apr-05	Disc recording medium
CH	Q 084008	85200431.6	20-Mar-85	0156440-A2		24-Jan-90	0156440	20-Mar-05	CD-ROM Error Correction System A
CZ	Q 084008	85-PV2009	21-Mar-85			23-Sep-96	281601	21-Mar-06	CD-ROM Error Correction System A
DE	Q 083025	P3431810.0	30-Aug-84	3431810		14-Jun-95	3431810	30-Aug-04	Framing of data-blocks on CD-ROM
DE	Q 084008	85200431.6	20-Mar-85	0156440-A2		24-Jan-90	3575646	20-Mar-05	CD-ROM Error Correction System A
DE	S84P0216	84305176.4	30-Jul-84			18-Jan-89	P3476289.2	30-Jul-04	Disc recording medium
FR	Q 084008	8504297	22-Mar-85			02-Nov-87	2561839	22-Mar-05	CD-ROM Error Correction System A
FR	S84P0216	84305176.4	30-Jul-84			18-Jan-89	133790	30-Jul-04	Disc recording medium
GB	Q 083025	8421705	28-Aug-84			03-Feb-88	2145855	28-Aug-04	Framing of data-blocks on CD-ROM
GB	Q 084008	8507248	20-Mar-85			09-Mar-88	2156555	20-Mar-05	CD-ROM Error Correction System A
GB	S84P0216	84305176.4	30-Jul-84			18-Jan-89	133790	30-Jul-04	Disc recording medium
HK	Q 083025	NOT GIVEN	28-Aug-84			18-Feb-93	0930121	28-Aug-04	Framing of data-blocks on CD-ROM
HK	Q 084008	20-Mar-85				06-May-93	0930433	20-Mar-05	CD-ROM Error Correction System A
IT	Q 084008	85200431.6	20-Mar-85	0156440-A2		24-Jan-90	016440	20-Mar-05	CD-ROM Error Correction System A
JP	Q 083025_A	93-269402	01-Sep-83	94-195947		29-Jan-97	2600585	01-Sep-03	Framing of data-blocks on CD-ROM
JP	Q 084008	84-57595	24-Mar-84	85-201575 95-101543		23-Aug-96	205642	24-Mar-04	CD-ROM Error Correction System A
KR	Q 084008	85-1914	23-Mar-85	94-8742		09-Jan-95	81142	23-Mar-05	CD-ROM Error Correction System A

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list
 Page 1 of 2
 Page date : 21 July 2003

Essential Philips and Sony patents relevant to CD-Disc / CD-ROM Mode 1 part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
NL	Q 084008	85200431.6	20-Mar-85	0156440-A2	24-Jan-90	0156440	20-Mar-05	CD-ROM Error Correction System A
NL	S84P0216	843051176.4	30-Jul-84		18-Jan-89	13379	30-Jul-04	Disc recording medium
SE	Q 084008	85200431.6	20-Mar-85	0156440-A2	24-Jan-90	0156440	20-Mar-05	CD-ROM Error Correction System A
SG	Q 084008	9290553.8	20-Mar-85		28-Oct-92	32772	20-Mar-05	CD-ROM Error Correction System A
SK	Q 083025	84-PV6607	03-Sep-84		09-Jun-92	276585	03-Sep-04	Framing of data-blocks on CD-ROM
SK	Q 084008	85-PV2009	21-Mar-85		26-May-97	278568	21-Mar-05	CD-ROM Error Correction System A
UA	Q 084008	3874714	22-Mar-85		27-Dec-94	3503	22-Mar-05	CD-ROM Error Correction System A
US	Q 084008	R 07379527	13-Jul-89		27-Nov-90	RE33462	22-Mar-05	CD-ROM Error Correction System A

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list

Annex A3 to the CD Disc Patent License Agreement

Essential Philips and Sony patents relevant to CD-Disc / CD-ROM Mode 2 part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
AT	Q 083025	84-A2769	29-Aug-84		29-Dec-97	403223	15-Apr-15	Framing of data-blocks on CD-ROM
AU	Q 083025	84-32584	31-Aug-84		26-Mar-91	603761	31-Aug-04	Framing of data-blocks on CD-ROM
BR	Q 083025	P18404319.9	29-Aug-84		17-Apr-02	P18404319.9	29-Aug-04	Framing of data-blocks on CD-ROM
CA	S84P0216	-	459869	27-Apr-84	26-Apr-88	1235812	26-Apr-05	Disc recording medium
DE	Q 083025	P3431B10.0	30-Aug-84	3431810	14-Jun-95	3431810	30-Aug-04	Framing of data-blocks on CD-ROM
DE	SB4P0216	-	84305176.4	30-Jul-84	18-Jan-84	P3476289.2	30-Jul-04	Disc recording medium
FR	S84P0216	-	84305176.4	30-Jul-84	18-Jan-84	133790	30-Jul-04	Disc recording medium
GB	Q 083025	8421705	28-Aug-84		03-Feb-88	2145855	28-Aug-04	Framing of data-blocks on CD-ROM
GB	S84P0216	-	84305176.4	30-Jul-84	18-Jan-84	133790	30-Jul-04	Disc recording medium
HK	Q 083025	-	NOT GIVEN	28-Aug-84	18-Feb-93	0930121	28-Aug-04	Framing of data-blocks on CD-ROM
JP	Q 083025 A	93-269402	01-Sep-83	94-195947	29-Jan-97	2600585	01-Sep-03	Framing of data-blocks on CD-ROM
NL	S84P0216	-	84305176.4	30-Jul-84	18-Jan-84	133790	30-Jul-04	Disc recording medium
SK	Q 083025	-	84-PV6607	03-Sep-84	09-Jun-92	276585	03-Sep-04	Framing of data-blocks on CD-ROM

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list

Annex A4 to the CD Disc Patent License Agreement

Essential Philips and Sony patents relevant to CD-Disc / CD-ROM XA Sub-mode 1 (Mode 2 Form 1) part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
AT	Q 083025	-	84-A2769	29-Aug-84	29-Dec-97	403223	15-Apr-15	Framing of data-blocks on CD-ROM
AT	Q 084008	-	85200431.6	20-Mar-85	0156440-A2	24-Jan-90	049835	CD-ROM Error Correction System A
AT	S84P0115	-	84901011.1	02-Mar-84		16-May-90	528666	Method and apparatus for recording digitized infor
AU	Q 083025	-	84-32584	31-Aug-84		26-Mar-91	603761	
AU	Q 084008	-	85-40240	22-Mar-85		29-Sep-89	584883	Framing of data-blocks on CD-ROM
BE	Q 084008	-	85200431.6	20-Mar-85	0156440-A2	24-Jan-90	0156440	CD-ROM Error Correction System A
BR	Q 083025	-	P18494319.9	29-Aug-84		17-Apr-02	P18404319.9	CD-ROM Error Correction System A
BR	Q 084008	-	P18501277.7	21-Mar-85		26-Oct-93	P18501277	Framing of data-blocks on CD-ROM
BR	Q 086003	-	P18700846.7	23-Feb-87		30-May-95	P18700846	CD-ROM Error Correction System A
CA	Q 084008	-	477183	21-Mar-85		13-Jun-89	1255771	Real-time format switching
CA	Q 086003	-	530120	19-Feb-87		12-Feb-91	1280208	CD-ROM Error Correction System A
CA	S84P0216	-	459869	27-Apr-84		26-Apr-88	1235812	Real-time format switching
CH	Q 084008	-	85200431.6	20-Mar-85	0156440-A2	24-Jan-90	0156440	Disc recording medium
CN	Q 086003	-	87100929.3	21-Feb-87	87100929-A	13-Mar-91	1010517	CD-ROM Error Correction System A
CZ	Q 084008	-	85-PV2509	21-Mar-85		23-Sep-96	281601	Framing of data-blocks on CD-ROM
DE	Q 083025	-	P3431810.0	30-Aug-84	3431810	14-Jun-95	3431810	CD-ROM Error Correction System A
DE	Q 084008	-	85200431.6	20-Mar-85	0156440-A2	24-Jan-90	3575646	Real-time format switching
DE	Q 086003	-	P37017783.2	22-Jan-87	37017763	22-May-97	3701763	CD-ROM Error Correction System A
DE	S84P0115	-	84901011.1	02-Mar-84		16-May-90	P3482291.7	Real-time format switching
DE	S84P0216	-	84905176.4	30-Jul-84		18-Jan-84	P3476229.2	Method and apparatus for recording digitized infor
FR	Q 084008	-	8504297	22-Mar-85		02-Nov-87	2568339	Disc recording medium
FR	Q 086003	-	8702234	20-Feb-87		22-Aug-88	2594996	CD-ROM Error Correction System A
FR	S84P0115	-	84401011.1	02-Mar-84		16-May-90	137855	Real-time format switching
FR	S84P0216	-	84305176.4	30-Jul-84		18-Jan-84	133790	Method and apparatus for recording digitized infor
GB	Q 083025	-	8421705	28-Aug-84		03-Feb-88	2145855	Disc recording medium
								Framing of data-blocks on CD-ROM

All corresponding patent applications, patents, continuations, divisions, and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list

Essential Philips and Sony patents relevant to CD-Disc / CD-ROM XA Sub-mode 1 (Mode 2 Form 1) part

country	reference	filing nr	filing date	publication nr	grant date	grant nr	expiry date	title	
GB	Q 084008	-	8507248	20-Mar-85	09-Mar-88	2156555	20-Mar-05	CD-ROM Error Correction System A	
GB	Q 086003	-	8704011	20-Feb-87	06-Dec-89	2187008	20-Feb-07	Real-time format switching	
GB	S84P0115	-	84901011.1	02-Mar-84	16-May-90	137855	02-Mar-04	Method and apparatus for recording digitized information	
GB	S84P0216	-	84305176.4	30-Jul-84	18-Jan-84	133790	30-Jul-04	Disc recording medium	
HK	Q 083025	-	NOT GIVEN	28-Aug-84	18-Feb-93	0930121	28-Aug-04	Framing of data-blocks on CD-ROM	
HK	Q 084008	-	NOT GIVEN	20-Mar-85	06-May-93	0930433	20-Mar-05	CD-ROM Error Correction System A	
IT	Q 084008	-	85200431.6	20-Mar-85	0156440-A2	24-Jan-90	0156440	20-Mar-05	
IT	Q 086003	-	87-A19447	20-Feb-87	08-Feb-90	1215362	20-Feb-07	Real-time format switching	
JP	Q 083025 A	93-263402	01-Sep-83	94-1195947	29-Jan-97	2600585	01-Sep-03	Framing of data-blocks on CD-ROM	
JP	Q 084008	-	84-57595	24-Mar-84	85-201575	95-101543	23-Aug-96	2085642	CD-ROM Error Correction System A
JP	Q 086003	-	87-39997	23-Feb-87	87-217468	19-Dec-97	2730024	23-Feb-07	
KR	Q 084008	-	85-1914	23-Mar-85	94-8742	09-Jan-95	81142	CD-ROM Error Correction System A	
KR	Q 086003	-	87-1501	23-Feb-87	95-7946	30-Oct-95	91017	23-Feb-07	
NL	Q 084008	-	85200431.6	20-Mar-85	0156440-A2	24-Jan-90	0156440	CD-ROM Error Correction System A	
NL	Q 086003	-	8600450	24-Feb-86	8600450	04-Feb-97	192151	24-Feb-06	
NL	S84P0216	-	84305176.4	30-Jul-84	18-Jan-84	133790	30-Jul-04	Disc recording medium	
SE	Q 084008	-	85200431.6	20-Mar-85	0156440-A2	24-Jan-90	0156440	20-Mar-05	
SE	Q 086003	-	8700711-8	20-Feb-87	09-Jan-92	465442	20-Feb-07	Real-time format switching	
SG	Q 084008	-	9290553.8	20-Mar-85	28-Oct-92	32772	20-Mar-05	CD-ROM Error Correction System A	
SK	Q 083025	-	84-PV66697	03-Sep-84	09-Jun-92	276585	03-Sep-04	Framing of data-blocks on CD-ROM	
SK	Q 084008	-	85-PV2009	21-Mar-85	26-May-97	278568	21-Mar-05	CD-ROM Error Correction System A	
TW	Q 086003	-	76100969	25-Feb-87	26-Mar-88	27916	25-Feb-07	Real-time format switching	
UA	Q 084008	-	3874714	22-Mar-85	27-Dec-94	3503	22-Mar-05	CD-ROM Error Correction System A	
US	Q 084008 R	07/370627	13-Jul-89	27-Nov-90	RE33462	22-Mar-05	CD-ROM Error Correction System A		
US	Q 086003	07/018163	24-Feb-87	31-Jan-89	4802169	24-Feb-07	Real-time format switching		

All corresponding patent applications, patents, continuations, divisions, and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list

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Annex A5 to the CD Disc Patent License Agreement
 Essential Philips and Sony patents relevant to CD-Disc / CD-ROM XA Sub-mode 2 (Mode 2 Form 2) part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
AT	Q 083025	-	84A2769	29-Aug-84	29-Dec-97	403223	15-Apr-15	Framing of data-blocks on CD-ROM
AT	S84P0115	-	84901011.1	02-Mar-84	16-May-90	52866	02-Mar-04	Method and apparatus for recording digitized infor
AU	Q 083025	-	84-32584	31-Aug-84	26-Mar-91	603781	31-Aug-04	Framing of data-blocks on CD-ROM
BR	Q 083025	-	P16404319.9	29-Aug-84	17-Apr-92	P18404319.9	28-Aug-04	Framing of data-blocks on CD-ROM
BR	Q 086003	-	P18700846.7	23-Feb-87	30-May-95	P18700846	23-Feb-07	Real-time format switching
CA	Q 086003	-	530120	19-Feb-87	12-Feb-91	1280308	12-Feb-08	Real-time format switching
CA	S84P0216	-	459869	27-Apr-84	26-Apr-88	1235812	26-Apr-05	Disc recording medium
CN	Q 086003	-	87100929.3	21-Feb-87	87100929-A	13-Mar-91	1010517	21-Feb-07
DE	Q 083025	-	P2431810.0	30-Aug-84	3431810	14-Jun-95	3431810	30-Aug-04
DE	Q 086003	-	P3701763.2	22-Jan-87	3701763	22-May-97	3701763	22-Jan-07
DE	S84P0115	-	84901011.1	02-Mar-84	16-May-90	P3482291.7	02-Mar-04	Method and apparatus for recording digitized infor
DE	S84P0216	-	84305176.4	30-Jul-84	18-Jan-84	P3476289.2	30-Jul-04	Disc recording medium
FR	Q 086003	-	8702234	20-Feb-87	22-Aug-88	2594956	20-Feb-07	Realtime format switching
FR	S84P0115	-	84901011.1	02-Mar-84	16-May-90	137855	02-Mar-04	Method and apparatus for recording digitized infor
FR	S84P0216	-	84305176.4	30-Jul-84	18-Jan-84	133790	30-Jul-04	Disc recording medium
GB	Q 083025	-	84211795	28-Aug-84	03-Feb-88	2145835	26-Aug-04	Framing of data-blocks on CD-ROM
GB	Q 086003	-	8704011	20-Feb-87	06-Dec-89	2187008	20-Feb-07	Realtime format switching
GB	S84P0115	-	84901011.1	02-Mar-84	16-May-90	137855	02-Mar-04	Method and apparatus for recording digitized infor
GB	S84P0216	-	84305176.4	30-Jul-84	18-Jan-84	133790	30-Jul-04	Disc recording medium
HK	Q 083025	-	NOT GIVEN	28-Aug-84	18-Feb-93	0930121	28-Aug-04	Framing of data-blocks on CD-ROM
IT	Q 086003	-	87-A19447	20-Feb-87	08-Feb-90	1215362	20-Feb-07	Realtime format switching
JP	Q 083025	A	93-269402	01-Sep-83	94-195947	29-Jan-97	2600585	01-Sep-03
JP	Q 086003	-	87-39997	23-Feb-87	87-217468	19-Dec-97	2730024	23-Feb-07
KR	Q 086003	-	87-1501	23-Feb-87	95-7946	30-Oct-95	91017	23-Feb-07
NL	Q 086003	-	8600450	24-Feb-86	8600450	04-Feb-97	192151	24-Feb-06

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list

Essential Philips and Sony patents relevant to CD-Disc / CD-ROM XA Sub-mode 2 (Mode 2 Form 2) part

country	reference	filinG nr	filinG date	publicatiOn nr	graNT date	graNT nr	expirY date	titLe
NL	S84P0216	-	84305176.4	30-Jul-84	18-Jan-84	133790	30-Jul-04	Disc recording medium
SE	Q 086003	-	87070711-8	20-Feb-87	09-Jan-92	465442	20-Feb-07	Real-time format switching
SK	Q 083025	-	84-PV6607	03-Sep-84	09-Jun-92	276585	03-Sep-04	Framing of data-blocks on CD-ROM
TW	Q 086003	-	76100969	25-Feb-87	26-Mar-88	27916	25-Feb-07	Real-time format switching
US	Q 086003	-	07019163	24-Feb-87	31-Jan-89	4802169	24-Feb-07	Real-time format switching

the first time in the history of the world, the number of the members of the *United States* has exceeded the number of the members of the *Confederacy*.

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list.

Annex A6 to the CD Disc Patent License Agreement
Essential Philips and Sony patents relevant to CD-Disc / CD-Extra part

COUNTRY REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE	
AT	S85P0059 -	85500170.3	30-Nov-84	165320	03-Jun-92	E76996	30-Nov-04	Disc recording medium
AU	N 013661 -	92-113942	31-Mar-92	92-113942	661991	19-Feb-96	31-Mar-12	Recording of content information in Lead-Out
AU	S85P0059 -	37412/85	30-Nov-84	37412/85	07-Sep-89	587963	30-Nov-04	Disc recording medium
AU	S96P005 -	22565/00	24-Mar-00	-	01-Jun-00	728279	23-Jan-16	Multi-session disc having disc type code area loca
CA	N 013661 -	20645/11	31-Mar-92	-	01-Jan-02	20645/11	31-Mar-12	Recording of content information in Lead-Out
CH	S85P0059 -	85900170.3	30-Nov-84	165320	03-Jun-92	165320	30-Nov-04	Disc recording medium
CN	S96P0005 -	96104382	30-Jan-96	CN1137675A	-	-	-	Multi-session disc having disc type code area loca
CZ	N 013685 -	92-PV970	01-Apr-92	-	20-Jul-00	287132	01-Apr-12	CD-ROM XA Multi-session WO
DE	N 013661 -	92200893.3	30-Mar-92	0507397-A3	01-Jul-98	69226031.5	30-Mar-12	Recording of content information in Lead-Out
DE	N 013685 -	92200909.7	30-Mar-92	0507403-A3	08-Jul-98	69226116.8	30-Mar-12	CD-ROM XA Multi-session WO
DE	S85P0059 -	85900170.3	30-Nov-84	165320	03-Jun-92	P3485761.3	30-Nov-04	Disc recording medium
ES	N 013661 -	92200893.3	30-Mar-92	0507397-A3	01-Jul-98	2113784	30-Mar-12	Recording of content information in Lead-Out
ES	N 013685 -	92200909.7	30-Mar-92	0507403-A3	08-Jul-98	0507403	30-Mar-12	CD-ROM XA Multi-session WO
FR	N 013661 -	92200893.3	30-Mar-92	0507397-A3	01-Jul-98	0507397	30-Mar-12	Recording of content information in Lead-Out
FR	N 013685 -	92200909.7	30-Mar-92	0507403-A3	08-Jul-98	0507403	30-Mar-12	CD-ROM XA Multi-session WO
FR	S85P0059 -	85900170.3	30-Nov-84	165320	03-Jun-92	165320	30-Nov-04	Disc recording medium
FR	S96P0005 -	96101066.7	25-Jan-96	724263	-	-	-	Multi-session disc having disc type code area loca
GB	N 013661 -	92200893.3	30-Mar-92	0507397-A3	01-Jul-98	0507397	30-Mar-12	Recording of content information in Lead-Out
GB	N 013685 -	92200909.7	30-Mar-92	0507403-A3	08-Jul-98	0507403	30-Mar-12	CD-ROM XA Multi-session WO
GB	S85P0059 -	85900170.3	30-Nov-84	165320	03-Jun-92	165320	30-Nov-04	Disc recording medium
GB	S96P0005 -	96101066.7	25-Jan-96	724263	-	-	-	Multi-session disc having disc type code area loca
HK	S85P0059 -	-	25-May-95	-	25-May-95	0815/1995	-	Disc recording medium
HU	N 013685 -	P9201055	30-Mar-92	-	30-Aug-99	216680	30-Mar-12	CD-ROM XA Multi-session WO
ID	S96P0005 -	P.960210	30-Jan-96	012695A	29-Dec-99	ID0004712	30-Jan-16	Multi-session disc having disc type code area loca
IN	S96P0005 -	0188/DEL/96	29-Jan-96	-	-	-	-	Multi-session disc having disc type code area loca

All corresponding parent applications, patents, divisions, continuations and reissues based upon any of the parent applications or patents of this list are considered to be concluded as an integral part of this list
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Essential Philips and Sony patents relevant to CD-Disc / CD-Extra part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
IT	N 013661	92200893.3	30-Mar-92	0507397-A3	01-Jul-98	0507397	30-Mar-12	Recording of content information in Lead-Out
IT	N 013665	92200909.7	30-Mar-92	0507403-A3	08-Jul-98	0507403	30-Mar-12	CD-ROM XA Multi-session WO
IT	S96P0005	96101066.7	25-Jan-96	724263	-	-	-	Multi-session disc having disc type code area loca
JP	84000899	58226598	30-Nov-83	60-119670	20-Dec-96	2123759	30-Nov-03	Disc recording medium
JP	84011554	59-057595	24-Mar-84	60-201575	23-Aug-96	2085642	24-Mar-04	Method and apparatus for transmitting digital data
JP	95060963	07311437	29-Nov-95	08-227577	-	-	-	Recording medium having a first management area
JP	N 013661	92-81010	02-Apr-92	93-89596	05-Apr-02	3293651	02-Apr-12	Recording of content information in Lead-Out
JP	N 013685	92-79901	01-Apr-92	93-94675	15-Nov-02	3369211	01-Apr-12	CD-ROM XA Multi-session WO
JP	N 013685 A	02-201276	01-Apr-92	-	-	-	01-Apr-12	CD-ROM XA Multi-session WO
JP	N 013685 B	03-313344	01-Apr-92	-	-	-	01-Apr-12	CD-ROM XA Multi-session WO
JP	S96P0005	07013241	30-Jan-95	08-203210	-	-	-	Multi-session disc having disc type code area loca
KR	N 013661	92-5313	31-Mar-92	92-20420	22-Feb-00	256385	31-Mar-12	Recording of content information in Lead-Out
KR	N 013685	92-5314	31-Mar-92	92-20418	09-Nov-99	242218	31-Mar-12	CD-ROM XA Multi-session WO
KR	S85P0059	85-700146	29-Jul-85	85-00175	30-Apr-93	85120	30-Nov-04	Disc recording medium
KR	S85P0059	92-702998	30-Oct-92	-	22-May-95	61735	30-Nov-04	Disc recording medium
KR	S96P0005	96-02552	30-Jan-96	96-30119	-	-	-	Multi-session disc having disc type code area loca
MY	S86P0005	P19860317	29-Jan-96	-	-	-	-	Multi-session disc having disc type code area loca
NL	S85P0059	85900170.3	30-Nov-84	165320	03-Jun-92	165320	30-Nov-04	Disc recording medium
NL	S96P0005	96101066.7	25-Jan-96	724263	-	-	-	Multi-session disc having disc type code area loca
RU	N 013661	5011395	01-Apr-92	-	27-Jan-97	207256	01-Apr-12	Recording of content information in Lead-Out
SE	S95P0059	85900170.3	30-Nov-84	-	03-Jun-92	165320	30-Nov-04	Disc recording medium
SG	S96P0005	9600515	27-Jan-96	-	23-May-00	33669	27-Jan-16	Multi-session disc having disc type code area loca
SK	N 013685	92-PV0970	01-Apr-92	-	03-Oct-01	28223	01-Apr-12	CD-ROM XA Multi-session WO
TW	N 013661	80109966	19-Dec-91	UNKNOWN 57337	04-Nov-92	57337	19-Dec-11	Recording of content information in Lead-Out
TW	N 013685	80109963	19-Dec-91	59397	02-Mar-93	59397	19-Dec-11	CD-ROM XA Multi-session WO
UA	N 013661	93002573	15-Nov-93	-	-	-	15-Nov-13	Recording of content information in Lead-Out
US	N 013661 V	071900874	18-Jun-92	-	23-Aug-94	5341356	07-Jan-12	Recording of content information in Lead-Out

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list

Essential Philips and Sony patents relevant to CD-Disc / CD-Extra part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
US	N 013685 A	08/180002	11-Jan-94		14-Feb-95	5390159	14-Feb-12	CD-ROM XA Multi-session WO
US	N 013685 B	08/328307	24-Oct-94		02-Mar-99	5878019	02-Mar-16	CD-ROM XA Multi-session WO
US	N 013685 V	08/371644	12-Jan-95		04-Nov-97	5684786	04-Nov-14	CD-ROM XA Multi-session WO
US	N 013709 D	08/707846	09-Sep-96		01-Dec-98	5844867	01-Dec-15	Decoder delay in coded video frames
US	S85P0059 -	266207	27-Oct-88	-	09-Jan-90	4893193	09-Jan-07	Disc recording medium
US	S96P0005 -	592962	29-Jan-96	-	07-Jul-98	5778257	29-Jan-16	Multi-session disc having disc type code area location

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded

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Annex A7 to the CD Disc Patent License Agreement
Essential Phillips and Sony patents relevant to CD-Disc / CD-Text part

COUNTRY REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
AR	N 015474	-	P960104337	13-Sep-96	30-Aug-00	AR003572	13-Sep-16
AT	95069128	-	96115085.1	19-May-96	791925	14-Nov-01	Transferring information via the lead-in of CD
AT	D 088009	-	89200081.1	16-Jan-89	0325325-A3	04-Sep-96	Producing medium having text information record
AT	N 015474	-	96927834.0	09-Sep-96	0792504-A1	13-Jun-01	Repeated transfer of subcode data
AU	95069128	-	95625/96	13-Sep-96	-	20-Apr-00	Transferring information via the lead-in of CD
AU	D 088009	-	89-28557	18-Jan-89	639411	06-Dec-93	Producing medium having text information record
BE	N 015474	-	96927834.0	09-Sep-96	0792504-A1	13-Jun-01	Repeated transfer of subcode data
BR	95069128	-	9603029	20-Sep-96	-	-	Transferring information via the lead-in of CD
CA	D 088009	-	588304	16-Jan-89	-	28-Sep-93	Producing medium having text information record
CH	D 088009	-	89200081.1	16-Jan-89	0325325-A3	04-Sep-96	Repeated transfer of subcode data
CN	95069128	-	96121105	22-Sep-96	1153981	-	Transferring information via the lead-in of CD
CN	95085448	-	96121626	02-Nov-96	1158491	-	Producing medium and its reproducing apparatus
CN	D 088009	-	89101069.6	19-Jan-89	1035577-A	10-Oct-93	Recording medium and its reproducing apparatus
CN	D 088009	A	92102717.6	19-Jan-89	1068673-A	01-Jun-94	Producing medium having text information record
CZ	D 088009	-	89-PV287	16-Jan-89	-	21-Dec-98	Repeated transfer of subcode data
DE	950563039	-	96119371.1	03-Dec-96	783167	11-Apr-01	Disc Reproducing apparatus
DE	95069128	-	96115085.1	19-May-96	791925	14-Nov-01	Producing medium having text information record
DE	95085448	-	96117539.5	31-Oct-96	772198	-	Recording medium and its reproducing apparatus
DE	D 088009	-	89000081.1	16-Jan-89	0325325-A3	04-Sep-96	Disc Reproducing apparatus
DE	N 015474	-	96927834.0	09-Sep-96	0792504-A1	13-Jun-01	Producing medium having text information record
ES	N 015474	-	96927834.0	09-Sep-96	0792504-A1	13-Jun-01	Transferring information via the lead-in of CD
FR	95053039	-	96119371.1	03-Dec-96	783167	11-Apr-01	Disc Reproducing apparatus
FR	95069128	-	96115085.1	19-May-96	791925	14-Nov-01	Producing medium having text information record
FR	95085448	-	96117539.5	31-Oct-96	772198	-	Recording medium and its reproducing apparatus
FR	D 088009	-	89200081.1	16-Jan-89	0325325-A3	04-Sep-96	Transferring information via the lead-in of CD
						0325325	16-Jan-09
							Repeated transfer of subcode data

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list

Version date : 17 July 2003
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Essential Philips and Sony patents relevant to CD-Disc / CD-Text part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	PUBLICATION DATE	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
FR	N 015474	-	96927834.0	09-Sep-96	0792504-A1	13-Jun-01	0792504	09-Sep-16	Transferring information via the lead-in of CD
GB	95069128	-	96115085.1	03-Dec-96	783167	11-Apr-01	783167	03-Dec-16	Disc Reproducing apparatus
GB	95085448	-	96117539.5	19-May-96	791925	14-Nov-01	791925	19-Sep-16	Reproducing medium having text information record
GB	D 088009	-	8920008.1	31-Oct-96	772198	-	-	31-Oct-16	Recording medium and its reproducing apparatus
GB	N 015474	-	96927834.0	09-Sep-96	0792504-A1	04-Sep-96	0325325	16-Jan-09	Repeated transfer of subcode data
GB	D 088009	-	98106421.9	16-Jan-98	-	01-Apr-98	HK1007226	03-Sep-16	Transferring information via the lead-in of CD
HU	95085448	-	96036337	01-Nov-96	-	-	-	16-Jan-09	Repeated transfer of subcode data
ID	95069128	-	P963566	02-Dec-96	-	03-Nov-00	656	02-Dec-16	Recording medium and its reproducing apparatus
ID	95069128	-	P962647	19-Sep-96	-	-	7229	19-Nov-16	Disc Reproducing apparatus
ID	95085448	-	P963188	04-Nov-96	-	07-Jun-00	5137	04-Nov-16	Reproducing medium having text information record
ID	N 015474	-	P-962584	12-Sep-96	014759-A	12-Jul-02	ID0008395	12-Sep-16	Recording medium and its reproducing apparatus
IN	95069128	-	2023/DEU/96	16-Sep-96	-	-	-	16-Sep-11	Reproducing medium having text information record
IN	N 015474	-	961617	11-Sep-96	-	-	-	11-Sep-10	Transferring information via the lead-in of CD
IN	N 015474 A	-	03-265	11-Sep-96	-	-	-	11-Sep-10	Recording medium and its reproducing apparatus
IN	N 015474 B	-	03-266	11-Sep-96	-	-	-	11-Sep-10	Transferring information via the lead-in of CD
IN	N 015474 C	-	03-267	11-Sep-96	-	-	-	11-Sep-10	Transferring information via the lead-in of CD
IT	D 088009	-	89200081.1	16-Jan-89	0325325-A3	04-Sep-96	0325325	16-Jan-09	Transferring information via the lead-in of CD
IT	N 015474	-	96927834.0	09-Sep-96	0792504-A1	13-Jun-01	0792504	09-Sep-16	Repeated transfer of subcode data
JP	95063039	-	07-318956	07-Dec-95	03-161375	-	-	07-Dec-15	Disc Reproducing apparatus
JP	95069128	-	07-244959	22-Sep-95	09-091880	-	-	22-Sep-15	Disc Reproducing apparatus
JP	95085448	-	07-310080	02-Nov-95	03-128868	-	-	02-Nov-15	Reproducing medium having text information record
JP	95100948	-	06-242659	26-Aug-96	10-64245	-	-	26-Aug-16	Recording medium and its reproducing apparatus
JP	D 088009	-	89-8736	19-Jan-89	90-77176	28-Jul-00	3092924	19-Jan-09	Repeated transfer of subcode data
JP	N 015474	-	97-511792	09-Sep-96	98-509270	-	-	09-Sep-16	Transferring information via the lead-in of CD
KR	95069128	-	96-62692	07-Dec-96	97-50695	-	-	07-Dec-16	Disc Reproducing apparatus
KR	95069128	-	96-43380	23-Sep-96	97-17230	-	-	23-Sep-16	Reproducing medium having text information record

All corresponding parent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list

Essential Philips and Sony patents relevant to CD-Disc / CD-Text part

COUNTRY REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	PUBLICATION DATE	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
KR 95085448 -	96-51644	02-Nov-95	98-29706				02-Nov-16	Recording medium and its reproducing apparatus
KR D 088009 -	89-517	19-Jan-89		16-Feb-98	138112	16-Feb-13	Repeated transfer of subcode data	
KR N 015474 -	97-703243	09-Sep-95				09-Sep-16	Transferring information via the lead-in of CD	
MX 95069128 -	964179	19-Sep-96		19-Apr-00	196099	19-Sep-16	Recording medium and its reproducing apparatus	
MX N 015474 -	973330	09-Sep-96				09-Sep-16	Transferring information via the lead-in of CD	
MY 95069039 -	9605148	07-Dec-95						Disc Reproducing apparatus
MY 95069128 -	9603888	20-Sep-96						Reproducing medium having text information record
MY N 015474 -	P19803785	13-Sep-96						Transferring information via the lead-in of CD
NL 95069128 -	96115085.1	19-May-96	791925		14-Nov-01	0791925	19-Sep-16	Reproducing medium having text information record
PH 95069128 -	54335	19-Sep-96	54335					Reproducing medium having text information record
PT N 015474 -	96927834.0	09-Sep-96	0792504-A1		13-Jun-01	0792504	09-Sep-16	Transferring information via the lead-in of CD
RU D 088009 -	4613351	17-Jan-89			10-Nov-97	2095857	17-Jan-99	Repeated transfer of subcode data
SE D 088009 -	89200081.1	16-Jan-89	0325325-A3		04-Sep-96	0325325	16-Jan-99	Repeated transfer of subcode data
SG N 015474 -	9704656.5	09-Sep-96			16-Nov-99	45880	09-Sep-16	Transferring information via the lead-in of CD
SK D 088009 -	89-PV/0287	16-Jan-89			14-Mar-00	280685	16-Jan-99	Repeated transfer of subcode data
TW 95069128 -	8511577	21-Sep-96			10-Sep-98	94512	20-Sep-16	Reproducing medium having text information record
TW D 088009 -	78100300	17-Jan-89			03-Sep-91	47153	17-Jan-99	Repeated transfer of subcode data
TW N 015474 -	85114202	19-Nov-96	410326		13-Mar-01	122112	19-Nov-16	Transferring information via the lead-in of CD
UA D 088009 -	93003372	17-Jan-89			28-Feb-00	26980	17-Jan-99	Repeated transfer of subcode data
US 95069309 -	753675	27-Nov-95			30-Jul-01	RE37808	27-Nov-16	Disc Reproducing apparatus
US 95069128 -	716953	20-Sep-96			28-Apr-98	5745454	20-Sep-16	Reproducing medium having text information record
US 95085448 -	739821	30-Oct-96			12-Jan-99	5899821	30-Oct-16	Recording medium and its reproducing apparatus
US D 088009 B	08/300002	05-Apr-93			24-Dec-96	5567979	17-Jan-99	Repeated transfer of subcode data
US N 015474 -	08/716685	16-Sep-96			25-Aug-98	5798990	16-Sep-16	Transferring information via the lead-in of CD
VN 95069128 -	SC021096	21-Sep-96			21-Aug-00	1483	21-Sep-16	Recording medium and its reproducing apparatus
VN 95085448 -	SC032895	02-Nov-96			12-Oct-01	2390	02-Nov-16	Reproducing medium having text information record

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded
as an integral part of this list

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Annex A8 to the CD Disc Patent License Agreement
Essential Philips and Sony patents relevant to CD-Disc / CD-Extra Video part

COUNTRY REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
AT D 086327	87201717.3	10-Sep-87	0260748-A3	13-Jun-94	E108587	10-Sep-07	Coefficient encoder in transform encoding
AT N 013409	91201373.7	03-Jun-91	0460764-A1	03-Sep-97	E157801	03-Jun-11	Sector and word offset in video block header
AT N 013709	91201337.2	03-Jun-91	0460751-A3	03-Sep-97	E157830	03-Jun-11	Decoder delay in coded video frames
AU N 013257	91201219	20-Feb-91	91-71219	641726	641726	20-Feb-11	Image data block with hierarchical encoding level
AU S90P0340	63362/94	26-May-94	63362/94		669983	12-Oct-10	Video signal transmitting system
AU N 013409	91201373.7	03-Jun-91	0460764-A1	03-Sep-97	0460764	03-Jun-11	Sector and word offset in video block header
BE N 013709	91201337.2	03-Jun-91	0460751-A3	03-Sep-97	0460751	03-Jun-11	Decoder delay in coded video frames
BE N 013257	2036585	19-Feb-91		16-Jan-01	2036555	19-Feb-11	Image data block with hierarchical encoding level
CA N 013409 A	2335403	31-May-91		19-Mar-02	2335403	31-May-11	Sector and word offset in video block header
CA S90P0340	2027659	15-Oct-90			2027658	15-Oct-10	Video signal transmitting system
CN D 086327	87105840.0	12-Sep-87	87105840-A	22-May-91	1011459	12-Sep-07	Coefficient encoder in transform encoding
DE D 086327	87201717.3	10-Sep-87	0260748-A3	13-Jul-94	3750269	10-Sep-07	Coefficient encoder in transform encoding
DE N 013257	91200329.0	18-Feb-91	0443676-A1	03-May-95	6910936.6	18-Feb-11	Image data block with hierarchical encoding level
DE N 013409	91201373.7	03-Jun-91	0460764-A1	03-Sep-97	69127506.8	03-Jun-11	Sector and word offset in video block header
DE N 013709	91201337.2	03-Jun-91	0460751-A3	03-Sep-97	69127504.1	03-Jun-11	Decoder delay in coded video frames
DE S90P0340	90311145.8	11-Oct-90	424026-A3		P69031107.3	11-Oct-10	Video signal transmitting system
DE S90P0340	96101178	29-Jan-96	713340-A3		P69033782.5	11-Oct-10	Video signal transmitting system
DE S91P0276	91304052.3	03-May-91	456433-A3		P69127224.7	03-May-11	Methods of recording coded motion picture data
DE S91P0276	96107156	07-May-96	730376-A3		P69132783	03-May-11	Methods of recording coded motion picture data
DK N 013257	91200329.0	18-Feb-91	0443676-A1	03-May-95	0443676	18-Feb-11	Image data block with hierarchical encoding level
DK N 013409	91201373.7	03-Jun-91	0460764-A1	03-Sep-97	0460764	03-Jun-11	Sector and word offset in video block header
DK N 013709	91201337.2	03-Jun-91	0460751-A3	03-Sep-97	0460751	03-Jun-11	Decoder delay in coded video frames
ES N 013409	91201373.7	03-Jun-91	0460764-A1	03-Sep-97	0460764	03-Jun-11	Sector and word offset in video block header
FI N 013257	910791	19-Feb-91		15-Jun-98	101442	19-Feb-11	Image data block with hierarchical encoding level
FR D 086327	87201717.3	10-Sep-87	0260748-A3	13-Jul-94	0260748	10-Sep-07	Coefficient encoder in transform encoding

http://www.uspto.gov/patent/apply/patent.html#ppatent

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be continued as an integral part of this list

Essential Philips and Sony patents relevant to CD-Disc / CD-Extra Video part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
FR	D 087091	-	88200818.8	27-Apr-88	0290085-A2	20-Mar-96	0290085	27-Apr-08 Motion estimation on superblocks
FR	N 013257	-	91200329.0	18-Feb-91	0443676-A1	03-May-95	0443676	18-Feb-11 Image data block with hierarchical encoding level
FR	N 013409	-	91201373.7	03-Jun-91	0460764-A1	03-Sep-97	0460764	03-Jun-11 Sector and word offset in video block header
FR	N 013709	-	91201337.2	03-Jun-91	0460751-A3	03-Sep-97	0460751	03-Jun-11 Decoder delay in coded video frames
FR	S90P0340	-	90311145.8	11-Oct-90	424026-A3		424026	11-Oct-10 Video signal transmitting system
FR	S90P0340	-	96101178	29-Jan-96	713340-A3		713340	11-Oct-10 Video signal transmitting system
FR	S91P0276	-	91304052.3	03-May-91	456433-A3		456433	03-May-11 Methods of recording coded motion picture data
FR	S91P0276	-	96107156	07-May-96	730376-A3		730376	03-May-11 Methods of recording coded motion picture data
GB	D 086327	-	87201717.3	10-Sep-87	0260748-A3	13-Jul-94	0260748	10-Sep-07 Coefficient encoder in transform encoding
GB	D 087091	-	88200818.8	27-Apr-88	0290085-A2	20-Mar-96	0290085	27-Apr-08 Motion estimation on superblocks
GB	N 013257	-	91200329.0	18-Feb-91	0443676-A1	03-May-95	0443676	18-Feb-11 Image data block with hierarchical encoding level
GB	N 013409	-	91201373.7	03-Jun-91	0460764-A1	03-Sep-97	0460764	03-Jun-11 Sector and word offset in video block header
GB	N 013709	-	91201337.2	03-Jun-91	0460751-A3	03-Sep-97	0460751	03-Jun-11 Decoder delay in coded video frames
GB	S90P0340	-	90311145.8	11-Oct-90	424026-A3		424026	11-Oct-10 Video signal transmitting system
GB	S90P0340	-	91101178	29-Jun-96	713340-A3		713340	11-Oct-10 Video signal transmitting system
GB	S91P0276	-	91304052.3	03-May-91	456433-A3		456433	03-May-11 Methods of recording coded motion picture data
GB	S91P0276	-	96107156	07-May-96	730376-A3		730376	03-May-11 Methods of recording coded motion picture data
GB	S92P0579	-	9508250.9	24-Apr-95	2289194		2289194	06-Mar-96 Multiple data separating
GB	S92P0579	-	9508350.7	24-Apr-95	2289195		2289195	06-Mar-96 Multiple data separating
HK	N 013257	-	NOT GIVEN	18-Feb-91		11-Apr-96	0960615	18-Feb-11 Image data block with hierarchical encoding level
HK	S91P0276	-	98115678	08-Feb-00	1014415		HK1014415	03-May-11 Methods of recording coded motion picture data
HK	S91P0276	-	100711.8	08-Feb-00	1023032		HK1023032	03-May-11 Methods of recording coded motion picture data
IT	D 086327	-	87201717.3	10-Sep-87	0260748-A3	13-Jul-94	0260748	10-Sep-07 Coefficient encoder in transform encoding
IT	N 013257	-	91200329.0	18-Feb-91	0443676-A1	03-May-95	0443676	18-Feb-11 Image data block with hierarchical encoding level
IT	N 013409	-	91201373.7	03-Jun-91	0460764-A1	03-Sep-97	0460764	03-Jun-11 Sector and word offset in video block header
IT	N 013709	-	91201337.2	03-Jun-91	0460751-A3	03-Sep-97	0460751	03-Jun-11 Decoder delay in coded video frames
JP	D 086327	-	87-228698	14-Sep-87	88-132530		31-Oct-97	2711685 14-Sep-07 Coefficient encoder in transform encoding

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list as an integral part of this list

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Essential Philips and Sony patents relevant to CD-Disc / CD-Extra Video part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	PUBLICATION DATE	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
JP	D 087091 -	88-109222	06-May-88	88-287186		25-Apr-97	2630509	06-May-08	Motion estimation on superblocks
JP	N 013257 -	91-47659	20-Feb-91	92-216288		30-Mar-01	3174586	20-Feb-11	Image data block with hierarchical encoding level
JP	N 013257 A	00-344604	13-Nov-00	01-186477				20-Feb-11	Image data block with hierarchical encoding level
JP	N 013409 A	01-151175	21-May-01	02-077794		24-Jan-03	3392834	04-Jun-11	Sector and word offset in video block header
JP	N 013409 8	01-387556	20-Dec-01	02-262242		24-Jan-03	3392842	04-Jun-11	Sector and word offset in video block header
JP	N 013709 A	00-393982	26-Dec-00	01-223988				04-Jun-11	Decoder delay in coded video frames
JP	S90P0340 -	01-267044	14-Oct-89	03-129855			3159310	14-Oct-09	Encoding method and apparatus for video signals
JP	S91P0276 -	02-119604	09-May-90	04-014374			2989722	09-May-10	Editing method and app. for coded video signals
JP	S91P0276 -	07-352515	09-May-90	08-265653			2877225	09-May-10	Coding method for video signals
JP	S91P0276 -	07-352516	09-May-90	08-265694			2874745	09-May-10	Decoding method and decoder for coded video signal
KR	D 086327 -	87-10122	12-Sep-87	97-5575		23-Jul-97	118698	17-Apr-12	Coefficient encoder in transform encoding
KR	N 013409 -	91-9152	03-Jun-91			02-Dec-99	0245962	03-Jun-11	Sector and word offset in video block header
KR	N 013709 -	91-9187	04-Jun-91	92-1479		22-Oct-99	239837	04-Jun-11	Decoder delay in coded video frames
KR	S91P0276 -	91-07460	09-May-91				221889	09-May-11	Methods of recording coded motion picture data
NL	D 086327 -	87201717.3	10-Sep-87	0260748-A3		13-Jul-94	0260748	10-Sep-07	Coefficient encoder in transform encoding
NL	N 013257 -	91200329.0	18-Feb-91	0443675-A1		03-May-95	0443676	18-Feb-11	Image data block with hierarchical encoding level
NL	N 013709 -	91201337.2	03-Jun-91	0480751-A3		03-Sep-97	0460751	03-Jun-11	Decoder delay in coded video frames
SE	D 086327 -	87201717.3	10-Sep-87	0260748-A3		13-Jul-94	0260748	10-Sep-07	Coefficient encoder in transform encoding
SE	N 013257 -	91200329.0	18-Feb-91	0443676-A1		03-May-95	0443676	18-Feb-11	Image data block with hierarchical encoding level
SE	N 013409 -	91201337.7	03-Jun-91	0460764-A1		03-Sep-97	0460764	03-Jun-11	Sector and word offset in video block header
SE	N 013709 -	91201337.2	03-Jun-91	0460751-A3		03-Sep-97	0460751	03-Jun-11	Decoder delay in coded video frames
SG	N 013257 -	96904677.7	18-Feb-91			28-May-96	39173	18-Feb-11	Image data block with hierarchical encoding level
TW	D 086327 -	76105691	23-Sep-87			28-Mar-90	35350	23-Sep-07	Coefficient encoder in transform encoding
US	D 086327 -	07/096177	11-Sep-87			13-Feb-90	4901075	11-Sep-07	Coefficient encoder in transform encoding
US	N 013557 C	081647149	09-May-96			16-Dec-97	5689476	16-Dec-14	Image data block with hierarchical encoding level
US	N 013409 B	08/563799	28-Nov-95			28-Apr-98	5745641	28-Apr-15	Sector and word offset in video block header
US	N 013709 C	08/616951	18-Mar-96			04-Mar-97	5608697	04-Mar-14	Decoder delay in coded video frames

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patent applications or patents of this list are considered to be concluded as an integral part of this list

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Essential Philips and Sony patents relevant to CD-Disc / CD-Extra Video part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT DATE	GRANT NR	EXPIRY DATE	TITLE
US	N 013709 D	08/707845	09-Sep-96		01-Dec-98	5844867	01-Dec-15	Decoder delay in coded video frames
US	S90P0340	277143	19-Jul-94			RE57222	12-Oct-10	Video signal transmitting system
US	S91P0276	693707	30-Apr-91			5191436	30-Apr-11	Methods of recording coded motion picture data
US	S91P0276	10/093005 (Re.)	07-Mar-02					Methods of recording coded motion picture data
US	S92P0579	925736	07-Aug-92			5291486	01-Mar-94	Data multiplexing and multipi. data demultiplexing

All corresponding patent applications, patents, divisions, continuations and reissues based upon any of the patient applications or patents of this list are considered to be concluded
 as an integral part of this list
 Version date : 17 July 2003



PHILIPS

Koninklijke Philips Electronics N.V.

P.O. Box 218 - 5600 MD Eindhoven - The Netherlands

Re: CD Disc Patent License Agreement

Ref: 1203-1124

Date: December 3, 2003

Dear Sirs,

Reference is made to the CD Disc Patent License Agreement ("Agreement") between Optical Experts Manufacturing, Inc. ("Licensee") and Koninklijke Philips Electronics N.V. ("Philips") covering the Territory of the United States and having an effective date of July 1, 2002, as well as the definitions used therein.

It is hereby agreed as follows:

1. This Side Letter shall constitute a legally binding and integral part of the Agreement and shall be effective as of July 1, 2002.
2. The Agreement supercedes and replaces the Comprehensive CD Disc License Agreement between U.S. Philips Corporation and Licensee having an effective date of May 24, 2000; provided, however, that the terms and conditions of the Work-Out Agreement effective February 28, 2002 remains in full force and effect.
3. Licensee shall not be required to pay the initial fee set forth in Article 5.01, as this fee was previously paid by Licensee in the Comprehensive CD Disc License Agreement effective May 24, 2000.
4. Licensee shall not be required to make a report and payment pursuant to Article 5.12, as Licensee has reported and paid the royalties accrued through July 1, 2002 (subject to paragraph 5 below).
5. In order to qualify for the Compliance Rates as set forth in Article 5.02, Licensee shall provide Philips with an audit statement pursuant to Article 5.05 covering the period July 1, 1999 through December 31, 2003. Philips has issued revised Audit Guidelines (Exhibit C1) which are attached hereto. Licensee shall have a reasonable time to complete such audit, but no longer than July 15, 2004. Licensee may pay the royalties due for the period July 1, 2002 through December 31, 2003 at the Compliance Rate, subject to timely completion of the audit. If the audit statement reveals an under-payment of more than 3%, Licensee shall not be entitled to the Compliance Rate through the date that such discrepancy is fully remedied by Licensee.
6. Philips and Licensee agree to keep the terms of this Side Letter confidential and shall not disclose it to third parties, except as may be necessary by either Philips or Licensee to enforce its rights hereunder or to comply with a requirement of a competent court or governmental body.

P 001152



PHILIPS

Ref: Licensee CD
Page: 2

If the above properly reflects our mutual understanding and agreement, please indicate so by signing both copies of this Side Letter and returning these to us. Upon receipt thereof we will arrange for countersignature on our part.

Yours sincerely,

Koninklijke Philips Electronics N.V.

A handwritten signature of H. Sakkers.

Name: H. Sakkers
Title: by proxy
Date: March 4, 2004

Read and Agreed:
Optical Experts Manufacturing, Inc.

A handwritten signature of Raymond B. Zernow.

Name: Raymond B. Zernow
Title: President
Date: 1/26/04

P 001153



Philips Intellectual Property & Standards

VIA FEDERAL EXPRESS

Direct Dial: (914) 333-9622
E-Mail: william.l.enihan@philips.com

Our File: 1203-1124

December 3, 2003

Mr. Raymond B. Zerrusen, Chief Operating Officer
Optical Experts Manufacturing, Inc.
8500 South Tryon Street
Charlotte, NC 28273

Re: CD Disc Patent License Agreement;
DVD Video Disc and DVD ROM Disc Patent License Agreement

Dear Mr. Zerrusen:

Koninklijke Philips Electronics N.V. ("KPENV") and Optical Experts Manufacturing, Inc. ("OEM") hereby confirm the following agreement ("Second Workout Agreement") regarding the CD Disc Patent License Agreement ("CD Disc Agreement") and the DVD Video Disc and DVD-ROM Disc Patent License Agreement ("DVD Disc Agreement"), each having an effective date of July 1, 2002:

1. Under the Art. 5.04 of the CD Disc Agreement and under the Art. 4.03 of the DVD Disc Agreement, OEM is required to provide KPENV with royalty reports thirty days after the end of each calendar quarter and to make royalty payments thirty days after the end of each calendar quarter on all Licensed Product sold during the preceding calendar quarter. OEM (i) failed to make royalty payments for the third and fourth calendar quarters of the year 2002 for the CD Disc Agreement and for the DVD Disc Agreement. OEM has asked KPENV (i) to forbear on the remedies available to KPENV under such CD Disc Agreement and DVD Disc Agreement (including termination of the CD Disc Agreement and the DVD Disc Agreement and commencement of legal action for immediate payment) and (ii) to re-structure payment for the unpaid royalties due and owing ("Arrears").

2. OEM has subsequently provided KPENV with an accounting of Arrears (i) under the CD Disc Agreement for the third and fourth calendar quarters of 2002 in the respective



P.O. Box 3001

345 Scarborough Road
Briarcliff Manor, NY 10510-8001

Tel: (914) 945-6000
Fax: (914) 332-0615

Mr. Raymond B. Ze, Chief Operating Officer
 December 3, 2003
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amounts of \$140,138.76 and \$127,871.03 and (ii) under the DVD Disc Agreement for the third and fourth calendar quarters of 2002 in the respective amounts of \$24,468.86 and \$41,255.59, and represents and warrants that these amounts are accurate in all material respects. The sum of the CD Disc Agreement Arrears and DVD Disc Agreement Arrears is \$164,607.62 ("Disc Agreement Arrears").

3. Additionally, Licensee has failed to make timely payments for previous unpaid arrears under a prior workout agreement between Licensee, KPENV and U.S. Philips Corporation ("USPC") dated February 28, 2002, leaving an unpaid balance immediately due KPENV of \$656,424.66 ("Previous Workout Arrears").

4. The combined sum of the Disc Agreement Arrears and the Previous Workout Arrears without interest as of December 3, 2003 equals \$990,129.01 ("Total Arrears Amount").

OEM shall pay KPENV the Total Arrears Amount in monthly payments, with the first payment, due January 15, 2004 as follows:

Payment Due Date	Payment	Total Principal Paid	Interest Paid	Outstanding Balance
15-Jan-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Feb-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Mar-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Apr-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-May-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jun-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jul-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Aug-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Sep-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Oct-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Nov-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Dec-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
	\$23,253.21			
15-Jan-2005		\$18,302.56	\$4,950.65	\$971,826.45
15-Feb-2005	\$23,253.21	\$18,394.08	\$4,859.13	\$953,432.37
15-Mar-2005	\$23,253.21	\$18,486.05	\$4,767.18	\$934,946.32
15-Apr-2005	\$23,253.21	\$18,578.48	\$4,674.73	\$916,367.84
15-May-2005	\$23,253.21	\$18,671.37	\$4,581.84	\$897,696.47
15-Jun-2005	\$23,253.21	\$18,764.73	\$4,488.48	\$878,931.74
15-Jul-2005	\$23,253.21	\$18,858.55	\$4,394.66	\$860,073.19
15-Aug-2005	\$23,253.21	\$18,952.84	\$4,300.37	\$841,120.35

Mr. Raymond B. Zer, Chief Operating Officer
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15-Sep-2005	\$23,253.21	\$19,047.61	\$4,205.60	\$822,072.74
15-Oct-2005	\$23,253.21	\$19,142.85	\$4,110.36	\$802,929.89
15-Nov-2005	\$23,253.21	\$19,238.56	\$4,014.65	\$783,691.33
15-Dec-2005	\$23,253.21	\$19,334.75	\$3,918.46	\$764,356.58
15-Jan-2006	\$23,253.21	\$19,431.43	\$3,821.78	\$744,925.15
15-Feb-2006	\$23,253.21	\$19,528.58	\$3,724.63	\$725,396.57
15-Mar-2006	\$23,253.21	\$19,626.23	\$3,626.98	\$705,770.34
15-Apr-2006	\$23,253.21	\$19,724.36	\$3,528.85	\$686,045.98
15-May-2006	\$23,253.21	\$19,822.98	\$3,430.23	\$666,223.00
15-Jun-2006	\$23,253.21	\$19,922.09	\$3,331.12	\$646,300.91
15-Jul-2006	\$23,253.21	\$20,021.71	\$3,231.50	\$626,279.20
15-Aug-2006	\$23,253.21	\$20,121.81	\$3,131.40	\$606,157.39
15-Sep-2006	\$23,253.21	\$20,222.42	\$3,030.79	\$585,934.96
15-Oct-2006	\$23,253.21	\$20,323.54	\$2,929.67	\$565,611.43
15-Nov-2006	\$23,253.21	\$20,425.15	\$2,828.06	\$545,186.28
15-Dec-2006	\$23,253.21	\$20,527.28	\$2,725.93	\$524,659.00
15-Jan-2007	\$23,253.21	\$20,629.92	\$2,623.29	\$504,029.08
15-Feb-2007	\$23,253.21	\$20,733.06	\$2,520.15	\$483,296.02
15-Mar-2007	\$23,253.21	\$20,836.73	\$2,416.48	\$462,459.29
15-Apr-2007	\$23,253.21	\$20,940.91	\$2,312.30	\$441,518.37
15-May-2007	\$23,253.21	\$21,045.62	\$2,207.59	\$420,472.76
15-Jun-2007	\$23,253.21	\$21,150.85	\$2,102.36	\$399,321.91
15-Jul-2007	\$23,253.21	\$21,256.60	\$1,996.61	\$378,065.31
15-Aug-2007	\$23,253.21	\$21,362.88	\$1,890.33	\$356,702.43
15-Sep-2007	\$23,253.21	\$21,469.70	\$1,783.51	\$335,232.73
15-Oct-2007	\$23,253.21	\$21,577.05	\$1,676.16	\$313,655.68
15-Nov-2007	\$23,253.21	\$21,684.93	\$1,568.28	\$291,970.75
15-Dec-2007	\$23,253.21	\$21,793.36	\$1,459.85	\$270,177.39
15-Jan-2008	\$23,253.21	\$21,902.32	\$1,350.89	\$248,275.07
15-Feb-2008	\$23,253.21	\$22,011.83	\$1,241.38	\$226,263.24
15-Mar-2008	\$23,253.21	\$22,121.89	\$1,131.32	\$204,141.34
15-Apr-2008	\$23,253.21	\$22,232.50	\$1,020.71	\$181,908.84
15-May-2008	\$23,253.21	\$22,343.67	\$909.54	\$159,565.17
15-Jun-2008	\$23,253.21	\$22,455.38	\$797.83	\$137,109.79
15-Jul-2008	\$23,253.21	\$22,567.66	\$685.55	\$114,542.13
15-Aug-2008	\$23,253.21	\$22,680.50	\$572.71	\$91,861.63
15-Sep-2008	\$23,253.21	\$22,793.90	\$459.31	\$69,067.73
15-Oct-2008	\$23,253.21	\$22,907.87	\$345.34	\$46,159.86
15-Nov-2008	\$23,253.21	\$23,022.41	\$230.80	\$23,137.44
15-Dec-2008	\$23,253.21	\$23,137.52	\$115.69	\$0.00

Mr. Raymond B. Ze [redacted], Chief Operating Officer
December 3, 2003
Page 4

5. The Total Arrears Amount and interest thereon is in addition to and is not a substitute for any other payments due after January 1, 2003, in whole or in part, under the CD Agreement and the DVD Disc Agreement.

6. In view of KPENV's forbearance in not immediately enforcing its rights under the CD Disc Agreement and the DVD Disc Agreement and in agreeing to the payment schedule set forth in paragraph 2, OEM further agrees that:

(a) OEM shall not contest the Total Arrears Amount and interest thereon;

(b) OEM stipulates that with respect to the payments due under this New Workout Agreement, the Licensed Patents under the CD Disc Agreement and the DVD Disc Agreement are valid and infringed by the Licensed Products manufactured by OEM during the Arrears period, and OEM shall not contest the validity or infringement of the Licensed Patents with respect to the Total Arrears Amount (provided, however, that nothing herein shall prevent OEM from contesting the Licensed Patents with respect to sales of Licensed Products after the full and timely payment of all monies payable under paragraph 2);

(c) If OEM (i) fails to make any of the payments for the Total Arrears Amount as of the due date specified or (ii) if OEM fails to timely provide any of the quarterly royalty reports or timely make any of the quarterly royalty payments due thereon as specified in Article 5.04 of the CD Disc Agreement and Article 4.03 of the DVD Disc Agreement, and OEM fails to cure such error within ten (10) business days of written notice by KPENV then:

(i) The entire remaining unpaid balance of the Total Arrears Amount shall immediately become due and payable;

(ii) KPENV shall be entitled to injunctive relief as well as or confession of judgement for the entire unpaid portion of the Arrears Amount; and

(iii) KPENV shall be entitled to an award of reasonable counsel fees and costs for enforcement of this Workout Agreement.

7. OEM and KPENV shall treat the contents of this Workout Agreement as confidential information and shall not disclose it to third parties, except as may be necessary by either KPENV or OEM to enforce its rights hereunder in a governmental body or court of law.

8. In addition to the other remedies set forth in this Workout Agreement, KPENV shall have the option to terminate this Workout Agreement in the event OEM breaches any

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OEM

Mr. Raymond B. Zer, Chief Operating Officer
December 3, 2003
Page 5

term hereof by providing written notice to OEM and OEM fails to cure such breach within ten (10) days of written notice by KPENV. In the event this termination option is exercised by KPENV, OEM shall be entitled to credit for payments made hereunder, but all other rights, remedies and defenses of KPENV shall be preserved. KPENV shall have the right to immediately assert claims (and take whatever legal action it deems appropriate) against OEM for the full amounts due (as opposed to the compromised amounts set forth herein), less credits to OEM for payments made hereunder.

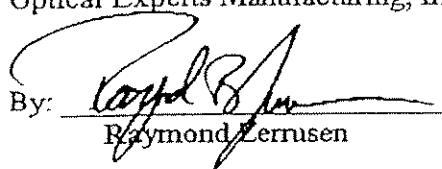
9. OEM forever releases and discharges KPENV, its agents, servants, employees, directors, officers, lawyers, branches, parent, affiliates, subsidiaries, successors and assigns and all person, firms, corporations and organizations acting on KPENV behalf (collectively, the "KPENV Released Entities") of and from any and all losses, damages, claims, demands, liabilities, obligations, actions and causes of action, of any nature whatsoever in law or in equity, contribution or indemnity, which the OEM may have or claim to have against KPENV or any one or more of the KPENV Released Entities, as of December 3, 2003, of every nature and kind whatsoever, on account of or in any way touching, concerning, arising out of, founded upon or relating to (i) the CD Disc Agreement and the DVD Disc Agreement, (ii) the obligations of KPENV under the CD Disc Agreement and the DVD Disc Agreement or otherwise, (iii) this Second Workout Agreement, (iv) enforcement or negotiations of this Second Workout Agreement or the CD Disc Agreement and the DVD Disc Agreement, (v) the dealings of the parties to this Second Workout Agreement, and (vi) anything else whatsoever.

10. KPENV shall maintain its right of audit under the CD Disc Agreement and the DVD Disc Agreement and should any such audit reveal facts which are materially different than those represented by OEM to KPENV in negotiating this Second Workout Agreement, KPENV shall have the right to enforce the CD Disc Agreement and the DVD Disc Agreement and seek any additional monies which may be due and owing under the CD Disc Agreement and the DVD Disc Agreement on or before January 31, 2003 and discovered as a result of such audit.

Mr. Raymond B. Zei, Chief Operating Officer
December 3, 2003
Page 6

Please acknowledge OEM's approval and acceptance to the foregoing by completing the signature block below.

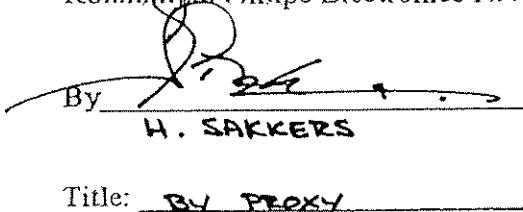
Optical Experts Manufacturing, Inc.

By: 
Raymond B. Zei

Title: Chief Operating Officer

Date: 12/8/03

Koninklijke Philips Electronics N.V.

By: 
H. SAKKERS

Title: By PROXY

Date: _____

PROMISSORY NOTE

Optical Experts Manufacturing Inc, a North Carolina corporation, having a business address at 8500 South Tryon Street, Charlotte, NC 28273 (the "Obligor"), for value received, hereby unconditionally and irrevocably promises to pay to the order of Koninklijke Philips Electronics N.V. ("Philips") at its offices in Briarcliff Manor, New York, in lawful money of the United States, without interest except as hereinafter provided, the principal sum of US\$ 990,129.01 (Nine Hundred and Ninety Thousand, One Hundred and Twenty Nine dollars), in the following monthly installments:

Payment Due Date Bottom of Form	Payment	Total Principal Paid	Interest Paid	Outstanding Balance
15-Jan-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Feb-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Mar-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Apr-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-May-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jun-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jul-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Aug-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Sep-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Oct-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Nov-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Dec-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jan-2005	\$23,253.21	\$18,302.56	\$4,950.65	\$971,826.45
15-Feb-2005	\$23,253.21	\$18,394.08	\$4,859.13	\$953,432.37
15-Mar-2005	\$23,253.21	\$18,486.05	\$4,767.16	\$934,946.32
15-Apr-2005	\$23,253.21	\$18,578.48	\$4,674.73	\$916,367.84
15-May-2005	\$23,253.21	\$18,671.37	\$4,581.84	\$897,696.47
15-Jun-2005	\$23,253.21	\$18,764.73	\$4,488.48	\$878,931.74
15-Jul-2005	\$23,253.21	\$18,858.55	\$4,394.66	\$860,073.19
15-Aug-2005	\$23,253.21	\$18,952.84	\$4,300.37	\$841,120.35
15-Sep-2005	\$23,253.21	\$19,047.61	\$4,205.60	\$822,072.74
15-Oct-2005	\$23,253.21	\$19,142.85	\$4,110.36	\$802,929.89
15-Nov-2005	\$23,253.21	\$19,238.56	\$4,014.65	\$783,691.33
15-Dec-2005	\$23,253.21	\$19,334.75	\$3,918.46	\$764,356.58
15-Jan-2006	\$23,253.21	\$19,431.43	\$3,821.78	\$744,925.15
15-Feb-2006	\$23,253.21	\$19,528.58	\$3,724.63	\$725,396.57
15-Mar-2006	\$23,253.21	\$19,626.23	\$3,626.98	\$705,770.34
15-Apr-2006	\$23,253.21	\$19,724.36	\$3,528.85	\$686,045.98
15-May-2006	\$23,253.21	\$19,822.98	\$3,430.23	\$666,223.00
15-Jun-2006	\$23,253.21	\$19,922.09	\$3,331.12	\$646,300.91
15-Jul-2006	\$23,253.21	\$20,021.71	\$3,231.50	\$626,279.20
15-Aug-2006	\$23,253.21	\$20,121.81	\$3,131.40	\$606,157.39
15-Sep-2006	\$23,253.21	\$20,222.42	\$3,030.79	\$585,934.96
15-Oct-2006	\$23,253.21	\$20,323.54	\$2,929.67	\$565,611.43
15-Nov-2006	\$23,253.21	\$20,425.15	\$2,828.06	\$545,186.28
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15-Mar-2008	\$23,253.21	\$22,121.89	\$1,131.32	\$204,141.34
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15-Nov-2008	\$23,253.21	\$23,022.41	\$230.80	\$23,137.44
15-Dec-2008	\$23,253.21	\$23,137.52	\$115.69	\$0.00

Any installment on this Note not paid when due shall bear interest from its due date until paid in full at the rate of 2% per annum, payable on demand.

All payments on this Note shall be payable without setoff, counterclaim or deduction of any kind whatsoever.

If this Note becomes due and payable on a Saturday, Sunday, or public or other banking holiday under the laws of the State of New York, the maturity thereof shall be extended to the next succeeding business day.

If any of the following events (each being herein referred to as an "Event of Default"), shall occur: (i) the Obligor shall fail to pay any installment on this Note when due and such failure shall continue unremedied for five (5) days; (ii) the Obligor shall fail to pay any other amount owing hereunder and such failure shall continue unremedied for ten (10) days after written notice from Philips, or (iii) the Obligor shall make an assignment for the benefit of creditors, or any order shall be entered relating to the Obligor under any bankruptcy, reorganization, dissolution, or liquidation law or statute of any jurisdiction, whether now or hereafter in effect, whereby Obligor becomes or is adjudicated insolvent or bankrupt, or the Obligor shall petition or apply to any tribunal for any receiver of or any trustee for it or any substantial part of its property; then in any such event Philips may declare all of the then unpaid installments on this Note and all other amounts owing hereunder to be immediately due and payable; provided, however, that upon the happening of any event specified in clause (iii) above, all unpaid installments on this Note and all other amounts owing

hereunder shall become immediately due and payable without declaration or other notice to the Obligor.

If Philips institutes any action for the enforcement or collection of this Note and recovers on such action, the Obligor shall pay on demand all costs and expenses of such action including reasonable attorney's fees and costs.

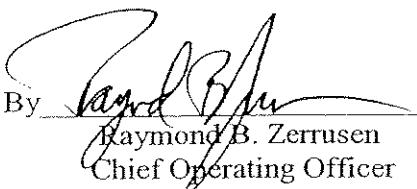
The Obligor expressly waives any presentment, demand, protest, or other notice of any kind.

The obligation under this Note shall not be transferable by the Obligor without the written consent of Philips.

**EXCEPT AS OTHERWISE EXPRESSLY PROVIDED
HEREIN WITH RESPECT TO THE SECURITY INTEREST GRANTED
HEREUNDER, THIS NOTE SHALL BE GOVERNED BY THE LAWS OF
THE STATE OF NEW YORK, BOTH IN INTERPRETATION AND IN
PERFORMANCE.**

The Obligor hereby irrevocably submits to the jurisdiction of any state or federal court in the State of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Note. The Obligor hereby irrevocably consents to the jurisdiction of any such court in any such action and to the laying of venue in New York State. The Obligor hereby irrevocably waives, to the fullest extent permitted by applicable law, any objection to the laying of the venue of any such suit, action or proceeding brought in the aforesaid courts and hereby irrevocably waives any claim that any such suit or proceeding brought in any such court has been brought in an inconvenient forum. Notwithstanding the foregoing, nothing herein shall in any way affect the right of Philips to bring any action arising out of or relating to this Note in any competent court elsewhere having jurisdiction over the Obligor or its property.

Optical Experts Manufacturing,
Inc.

By 
Raymond B. Zerrusen
Chief Operating Officer

PHILIPS

Philips Intellectual Property & Standards

VIA FEDERAL EXPRESS

Direct Dial: (914) 333-9622
E-Mail: william.lenihan@philips.com

Our File: 1203-1124

December 1, 2006

Mr. Raymond B. Zerrusen, Chief Operating Officer
Optical Experts Manufacturing, Inc.
8500 South Tryon Street
Charlotte, NC 28273

Re: CD Disc Patent License Agreement; DVD Video Disc and DVD ROM Disc Patent License Agreement and The Patent License Agreement for the Use of AC-3 Technology in the Manufacture of DVD-Video Discs

Dear Mr. Zerrusen:

Koninklijke Philips Electronics N.V. ("KPENV") and Optical Experts Manufacturing, Inc. ("Licensee") hereby confirm the following agreement ("2006 Payment Agreement") regarding the CD Disc Patent License Agreement, the DVD Video Disc and DVD ROM Disc Patent License Agreement and The Patent License Agreement for the Use of AC-3 Technology in the Manufacture of DVD-Video Discs ("CD, DVD & AC-3 Agreements") each having an effective date of July 1, 2002:

1. Pursuant to Clause 5.3, 4.03 and 3.02 of the CD, DVD & AC-3 Agreements, respectively, Licensee is required to provide KPENV a written statement setting forth all CD Discs, DVD Discs and DVD Discs incorporating AC-3 Technology purchased or manufactured by Licensee thirty days after the end of each calendar quarter to which royalties are due and to make royalty payments thirty days after the end of each calendar quarter. Pursuant to the findings of an audit of Licensee conducted by KPMG in October 2005, Licensee (i) failed to disclose all applicable discs purchased, manufactured or sold for the period July 1, 2000 through June 30, 2005 ("Underreported Products") and (ii) failed to make payment obligations scheduled for the 3rd & 4th Quarter 2000 & the 1st Quarter 2003, ("Missed Payments"). Licensee has asked KPENV (i) to forbear on the remedies available



Philips Electronics North America Corporation
345 Scarborough Road
P.O. Box 3001
Briarcliff Manor, NY 10510-8001

Tel: (914) 945-6000
Fax: (914) 332-0615

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Mr. Raymond B. Zerren, Chief Operating Officer
November 30, 2006
Page 2

to KPENV under the CD, DVD & AC-3 Agreements (including termination of the CD, DVD & AC-3 Agreements and commencement of legal action for immediate payment) and (ii) to structure a payment schedule for all Underreported Products and Missed Payments.

2. As indicated in the above paragraph 1, KPMG has provided Licensee & KPENV with a report of the audit showing (i) Underreported Products and (ii) Missed Payments (\$45,389.00) for the period July 1, 2000 until June 30, 2005, and the (iii) audit fee (\$56,500). KPENV and Licensee have considered the audit report and have agreed that the amount due for the Underreported Products is \$1,567,694.12, bringing the subtotal of the foregoing amounts to \$1,669,583.12.

Additionally, Licensee shall pay interest on the previously unpaid (i) Underreported Products and (ii) Missed Payments for the period July 1, 2000 until June 30, 2005 in the amount of \$54,533.07, for a total due of \$1,724,116.19 (one million, seven hundred and twenty four thousand, one hundred and sixteen dollars and nineteen cents) ("2006 Payment Amount") and Licensee represents and warrants that this amount is accurate in all material respects.

No release shall be granted under any of the Licensed Patents to Licensee or its downstream customers until the 2006 Payment Amount is paid in full. However, if a partial release is granted by a court or operation of law, for evidentiary purposes, the installment payments will first be credited towards the royalties due on sales to the smallest customers prior to June 30, 2005, and be applied in ascending order to the largest customers, until all of the installment payments have been completed.

3. Licensee shall pay KPENV the 2006 Payment Amount in monthly installment payments (interest and principle) in the amount of \$49,388.39. The first of 36 consecutive monthly payments is due on or before January 15, 2007. To illustrate: the next scheduled monthly payment is due on or before February 15, 2007. Licensee will continue to make monthly installment payments until the completion of the 36th scheduled payment, which is due on or before December 15, 2009.

4. Concurrent with this 2006 Payment Agreement, Licensee shall execute a Promissory Note in the form attached hereto.

5. The 2006 Payment Amount and included interest is in addition to and is not a substitute for any other payments due, in whole or in part, under the CD, DVD & AC-3 Agreements.

6. In view of KPENV's forbearance in not immediately enforcing its rights under the CD, DVD & AC-3 Agreements and in agreeing to the payment schedule set forth in paragraph 3, Licensee further agrees that:

Mr. Raymond B. Zerrusen, Chief Operating Officer
November 30, 2006
Page 3

(a) KPENV will assist Licensee in it's effort to recoup a portion of the 2006 Payment Amount by directing written notice to those customers Licensee believed had previously agreed to report and pay to KPENV any and all royalties due.

(b) Licensee stipulates that with respect to the payments due under this 2006 Payment Agreement, the Licensed Patents under the CD, DVD & AC-3 Agreements are valid and infringed by the Licensed Products manufactured by Licensee during the period July 1, 2000 until June 30, 2005, and Licensee shall not contest the validity or infringement of the Licensed Patents with respect to the 2006 Payment Amount (provided, however, that nothing herein shall prevent Licensee from contesting the Licensed Patents with respect to sales of Licensed Products after the full and timely payment of all monies payable under paragraph 2 & 3);

(c) If Licensee (i) fails to make any of the scheduled payments with regard to the 2006 Payment Amount as of the due date specified or (ii) if Licensee fails to timely provide any of the quarterly royalty reports or timely make any of the quarterly royalty payments due thereon as specified in Clause 5.3, 4.03 and 3.02 of the CD, DVD & AC-3 Agreements, and Licensee fails to cure such error within ten (10) business days of written notice by KPENV then:

- (i) The entire remaining unpaid balance of the 2006 Payment Amount shall immediately become due and payable;
- (ii) KPENV shall be entitled to injunctive relief as well as or confession of judgement for the entire unpaid portion of the 2006 Payment Amount; and
- (iii) KPENV shall be entitled to an award of reasonable counsel fees and costs for enforcement of this 2006 Payment Agreement.

(d) With respect to royalty reports and payments due under the CD Agreement, Licensee has alleged that it does not infringe any of the CD Patents covering CD Audio discs or CD ROM, Mode 1 discs, beginning from December 1, 2005. Accordingly, Licensee shall report such discs but it shall not be a breach of this 2006 Payment Agreement if Licensee does not pay royalties on such CD Audio and CD ROM Mode 1 discs. Notwithstanding the foregoing, KPENV reserves all of its rights with respect to enforcement of the CD Agreement and any patents covering CD Audio and CD ROM, Mode 1 discs.

7. Licensee and KPENV shall treat the contents of this 2006 Payment Agreement as confidential information and shall not disclose it to third parties, except as may be necessary by either KPENV or Licensee to enforce its rights hereunder in a governmental body or court of law.

Mr. Raymond B. Zerrusen, Chief Operating Officer
November 30, 2006
Page 4

8. In addition to the other remedies set forth in this 2006 Payment Agreement, KPENV shall have the option to terminate this 2006 Payment Agreement in the event Licensee breaches any term hereof by providing written notice to Licensee and Licensee fails to cure such breach within ten (10) days of written notice by KPENV. In the event this termination option is exercised by KPENV, Licensee shall be entitled to credit for payments made hereunder, but all other rights, remedies and defenses of KPENV shall be preserved. KPENV shall have the right to immediately assert claims (and take whatever legal action it deems appropriate) against Licensee for the full amounts due (as opposed to the compromised amounts set forth herein), less credits to Licensee for payments made hereunder.

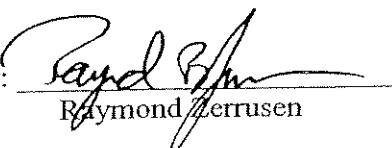
9. Licensee forever releases and discharges KPENV, its agents, servants, employees, directors, officers, lawyers, branches, parent, affiliates, subsidiaries, successors and assigns and all person, firms, corporations and organizations acting on KPENV behalf (collectively, the "KPENV Released Entities") of and from any and all losses, damages, claims, demands, liabilities, obligations, actions and causes of action, of any nature whatsoever in law or in equity, contribution or indemnity, which the Licensee may have or claim to have against KPENV or any one or more of the KPENV Released Entities, as of December 1, 2006, of every nature and kind whatsoever, on account of or in any way touching, concerning, arising out of, founded upon or relating to (i) CD, DVD & AC-3 Agreements, (ii) the obligations of KPENV under the CD, DVD & AC-3 Agreements or otherwise, (iii) this 2006 Payment Agreement, with exception being any proven already paid royalties as of the audit date June 30, 2006 (iv) enforcement or negotiations of this 2006 Payment Agreement or the CD, DVD & AC-3 Agreements, (v) the dealings of the parties to this 2006 Payment Agreement, and (vi) anything else whatsoever.

10. KPENV shall maintain its right of audit under the CD, DVD & AC-3 Agreements and should any such subsequent audit reveal facts which are materially different than those represented by Licensee to KPENV in negotiating this 2006 Payment Agreement, KPENV shall have the right to enforce the CD, DVD & AC-3 Agreements and seek any additional monies which may be due and owing under the CD, DVD & AC-3 Agreements and discovered as a result of such subsequent audit.

Mr. Raymond B. Zerrusen, Chief Operating Officer
November 30, 2006
Page 5

11. Please acknowledge OEM's approval and acceptance to the foregoing by completing the signature block below.

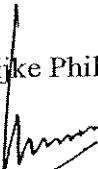
Optical Experts Manufacturing, Inc.

By: 
Raymond B. Zerrusen

Title: Chief Executive Officer

Date: 12/1/06

Koninklijke Philips Electronics N.V.

By: 
R. Peters

Title: BY PROXY

Date: _____

PROMISSORY NOTE

Optical Experts Manufacturing, a North Carolina Corporation, having a business address at 8500 South Tryon Street, Charlotte, North Carolina USA (the "Obligor"), for value received, hereby unconditionally and irrevocably promises to pay to the order of Koninklijke Philips Electronics N.V. ("Philips"), at its offices in Briarcliff Manor, New York, in lawful money of the United States, without interest except as hereinafter provided, the principal sum of US\$ **\$1,724,116.19** (one million, seven hundred and twenty four thousand, one hundred and sixteen dollars and nineteen cents), pursuant to the following payment schedule:

January 15, 2007	\$49,388.39	1
February 15, 2007	\$49,388.39	2
March 15 2007	\$49,388.39	3
April 15, 2007	\$49,388.39	4
May 15, 2007	\$49,388.39	5
June 15, 2007	\$49,388.39	6
July 15, 2007	\$49,388.39	7
August 15, 2007	\$49,388.39	8
September 15, 2007	\$49,388.39	9
October 15, 2007	\$49,388.39	10
November 15, 2007	\$49,388.39	11
December 15, 2007	\$49,388.39	12
January 15, 2008	\$49,388.39	13
February 15, 2008	\$49,388.39	14
March 15 2008	\$49,388.39	15
April 15, 2008	\$49,388.39	16
May 1, 2008	\$49,388.39	17
June 15, 2008	\$49,388.39	18
July 15, 2008	\$49,388.39	19
August 15, 2008	\$49,388.39	20
September 15, 2008	\$49,388.39	21
October 15, 2008	\$49,388.39	22
November 15, 2008	\$49,388.39	23

December 15, 2008	\$49,388.39	24
January 15, 2009	\$49,388.39	25
February 15, 2009	\$49,388.39	26
March 15 2009	\$49,388.39	27
April 15, 2009	\$49,388.39	28
May 15, 2009	\$49,388.39	29
June 15, 2009	\$49,388.39	30
July 15, 2009	\$49,388.39	31
August 15, 2009	\$49,388.39	32
September 15, 2009	\$49,388.39	33
October 15, 2009	\$49,388.39	34
November 15, 2009	\$49,388.39	35
December 15, 2009	\$49,388.39	36

Any installment on this Note not paid when due shall bear interest from its due date until paid in full at the rate of 2% per annum, payable on demand.

All payments on this Note shall be payable without setoff, counterclaim or deduction of any kind whatsoever.

If this Note becomes due and payable on a Saturday, Sunday, or public or other banking holiday under the laws of the State of New York, the maturity thereof shall be extended to the next succeeding business day.

If any of the following events (each being herein referred to as an "Event of Default"), shall occur: (i) the Obligor shall fail to pay any other amount owing hereunder and such failure shall continue unremedied for ten (10) days after written notice from Philips, or; (ii) the Obligor shall make an assignment for the benefit of creditors, or any order shall be entered relating to the Obligor under any bankruptcy, reorganization, dissolution, or liquidation law or statute of any jurisdiction, whether now or hereafter in effect, whereby Obligor becomes or is adjudicated insolvent or bankrupt, or the Obligor shall petition or apply to any tribunal for any receiver of or any trustee for it or any substantial part of its property; then in any such event Philips may declare all of the then unpaid installments on this Note and all other amounts owing hereunder to be immediately due and payable; provided, however, that upon the happening of any event specified in clause (ii) above, all unpaid installments on this Note and all other amounts

owing hereunder shall become immediately due and payable without declaration or other notice to the Obligor.

If Philips institutes any action for the enforcement or collection of this Note and recovers on such action, the Obligor shall pay on demand all costs and expenses of such action including reasonable attorney's fees and costs.

The Obligor expressly waives any presentment, demand, protest, or other notice of any kind.

The obligation under this Note shall not be transferable by the Obligor without the written consent of Philips.

**EXCEPT AS OTHERWISE EXPRESSLY PROVIDED HEREIN
WITH RESPECT TO THE SECURITY INTEREST GRANTED HEREUNDER,
THIS NOTE SHALL BE GOVERNED BY THE LAWS OF THE STATE OF
NEW YORK, BOTH IN INTERPRETATION AND IN PERFORMANCE.**

The Obligor hereby irrevocably submits to the jurisdiction of any state or federal court in the State of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Note. The Obligor hereby irrevocably consents to the jurisdiction of any such court in any such action and to the laying of venue in New York State. The Obligor hereby irrevocably waives, to the fullest extent permitted by applicable law, any objection to the laying of the venue of any such suit, action or proceeding brought in the aforesaid courts and hereby irrevocably waives any claim that any such suit or proceeding brought in any such court has been brought in an inconvenient forum. Notwithstanding the foregoing, nothing herein shall in any way affect the right of Philips to bring any action arising out of or relating to this Note in any competent court elsewhere having jurisdiction over the Obligor or its property.

Optical Experts Manufacturing, Inc.

By Raymond Bjorn CEO
Title

(12) EX PARTE REEXAMINATION CERTIFICATE (5512th)
United States Patent
Kramer

(10) Number: **US 5,068,846 C1**
 (45) Certificate Issued: **Sep. 19, 2006**

(54) **REFLECTIVE, OPTICAL RECORD CARRIER**

(75) Inventor: **Pieter Kramer**, Eindhoven (NL)

(73) Assignee: **U.S. Philips Corporation**, New York, NY (US)

Reexamination Request:

No. 90/007,336, Dec. 8, 2004

Reexamination Certificate for:

Patent No.: **5,068,846**
 Issued: **Nov. 26, 1991**
 Appl. No.: **06/858,550**
 Filed: **Apr. 23, 1986**

(58) **Field of Classification Search** 365/113, 365/120; 369/93-94, 107, 275.1, 111, 275.4, 369/125, 275.5, 109.1

See application file for complete search history.

(56)

References Cited

U.S. PATENT DOCUMENTS

1,898,040 A	2/1933	Eldred
3,174,140 A	3/1965	Hagopian et al.
3,198,880 A	8/1965	Toulon
3,626,386 A	12/1971	Feinlieb
3,635,551 A	1/1972	Szymber

Related U.S. Application Data

(63) Continuation of application No. 06/146,554, filed on May 5, 1980, now abandoned, which is a continuation of application No. 05/949,919, filed on Oct. 10, 1978, now abandoned, which is a continuation of application No. 05/772,914, filed on Feb. 28, 1977, now abandoned, which is a continuation of application No. 05/344,867, filed on Mar. 26, 1973, now abandoned.

(30) **Foreign Application Priority Data**

Sep. 2, 1972 (NL) 7211999

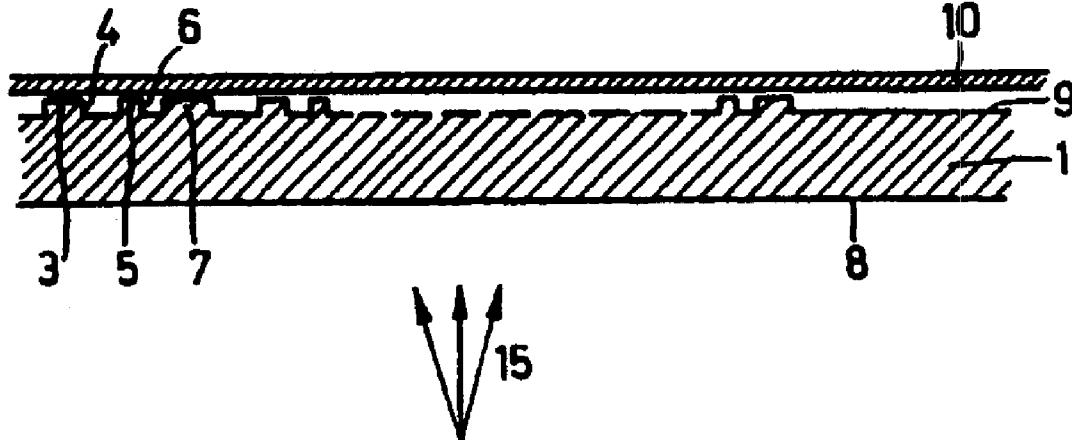
(51) **Int. Cl.**
G11B 7/24 (2006.01)

(52) **U.S. Cl.** **369/275.1; 369/109.01;**
369/275.5

Primary Examiner—Minh Nguyen

(57) **ABSTRACT**

A record carrier for information, for example video and/or audio information, in the form of a disk-shaped carrier substrate provided with an optical structure in accordance with the information is described. By making the optical structure radiation-reflecting and the substrate radiation-transmitting, whilst the surface of the substrate more remote from the optical structure forms both the entrance face and the exit face for the read radiation, and by coating a surface of the optical structure more remote from the substrate with an additional layer, a simple record carrier is obtained which is well protected against dust particles and damage.



US 5,068,846 C1

1

**EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307**

NO AMENDMENTS HAVE BEEN MADE TO
THE PATENT

2

AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

5 The patentability of claims **1** to **7** is confirmed.

* * * * *

EXHIBIT C



PHILIPS

Koninklijke Philips Electronics N.V.

P.O. Box 218 - 5600 MD Eindhoven - The Netherlands

Re: CD Disc Patent License Agreement

Ref: 1203-1124

Date: December 3, 2003

Dear Sirs,

Reference is made to the CD Disc Patent License Agreement ("Agreement") between Optical Experts Manufacturing, Inc. ("Licensee") and Koninklijke Philips Electronics N.V. ("Philips") covering the Territory of the United States and having an effective date of July 1, 2002, as well as the definitions used therein.

It is hereby agreed as follows:

1. This Side Letter shall constitute a legally binding and integral part of the Agreement and shall be effective as of July 1, 2002.
2. The Agreement supercedes and replaces the Comprehensive CD Disc License Agreement between U.S. Philips Corporation and Licensee having an effective date of May 24, 2000; provided, however, that the terms and conditions of the Work-Out Agreement effective February 28, 2002 remains in full force and effect.
3. Licensee shall not be required to pay the initial fee set forth in Article 5.01, as this fee was previously paid by Licensee in the Comprehensive CD Disc License Agreement effective May 24, 2000.
4. Licensee shall not be required to make a report and payment pursuant to Article 5.12, as Licensee has reported and paid the royalties accrued through July 1, 2002 (subject to paragraph 5 below).
5. In order to qualify for the Compliance Rates as set forth in Article 5.02, Licensee shall provide Philips with an audit statement pursuant to Article 5.05 covering the period July 1, 1999 through December 31, 2003. Philips has issued revised Audit Guidelines (Exhibit C1) which are attached hereto. Licensee shall have a reasonable time to complete such audit, but no longer than July 15, 2004. Licensee may pay the royalties due for the period July 1, 2002 through December 31, 2003 at the Compliance Rate, subject to timely completion of the audit. If the audit statement reveals an under-payment of more than 3%, Licensee shall not be entitled to the Compliance Rate through the date that such discrepancy is fully remedied by Licensee.
6. Philips and Licensee agree to keep the terms of this Side Letter confidential and shall not disclose it to third parties, except as may be necessary by either Philips or Licensee to enforce its rights hereunder or to comply with a requirement of a competent court or governmental body.

P 001152

**PHILIPS**Ref: Licensee CD
Page: 2

If the above properly reflects our mutual understanding and agreement, please indicate so by signing both copies of this Side Letter and returning these to us. Upon receipt thereof we will arrange for countersignature on our part.

Yours sincerely,

Koninklijke Philips Electronics N.V.

A handwritten signature of H. Salkers, which appears to be a stylized 'H' followed by 'Salkers'.

Name: H. Salkers
Title: by proxy
Date: March 4, 2004

Read and Agreed:
Optical Experts Manufacturing, Inc.

A handwritten signature of Raymond B. Zarrow, which appears to be a stylized 'R' followed by 'B. Zarrow'.

Name: Raymond B. Zarrow
Title: President
Date: 1/26/04

P 001153

EXHIBIT D



Philips Intellectual Property & Standards

VIA FEDERAL EXPRESS

Direct Dial: (914) 333-0622
E-Mail: william.lenihan@philips.com

Our File: 1203-1124

December 3, 2003

Mr. Raymond B. Zerrusen, Chief Operating Officer
Optical Experts Manufacturing, Inc.
8500 South Tryon Street
Charlotte, NC 28273

Re: CD Disc Patent License Agreement;
DVD Video Disc and DVD ROM Disc Patent License Agreement

Dear Mr. Zerrusen:

Koninklijke Philips Electronics N.V. ("KPENV") and Optical Experts Manufacturing, Inc. ("OEM") hereby confirm the following agreement ("Second Workout Agreement") regarding the CD Disc Patent License Agreement ("CD Disc Agreement") and the DVD Video Disc and DVD-ROM Disc Patent License Agreement ("DVD Disc Agreement"), each having an effective date of July 1, 2002:

1. Under the Art. 5.04 of the CD Disc Agreement and under the Art. 4.03 of the DVD Disc Agreement, OEM is required to provide KPENV with royalty reports thirty days after the end of each calendar quarter and to make royalty payments thirty days after the end of each calendar quarter on all Licensed Product sold during the preceding calendar quarter. OEM (i) failed to make royalty payments for the third and fourth calendar quarters of the year 2002 for the CD Disc Agreement and for the DVD Disc Agreement. OEM has asked KPENV (i) to forbear on the remedies available to KPENV under such CD Disc Agreement and DVD Disc Agreement (including termination of the CD Disc Agreement and the DVD Disc Agreement and commencement of legal action for immediate payment) and (ii) to re-structure payment for the unpaid royalties due and owing ("Arrears").

2. OEM has subsequently provided KPENV with an accounting of Arrears (i) under the CD Disc Agreement for the third and fourth calendar quarters of 2002 in the respective



P.O. Box 3001
345 Scarborough Road
Briarcliff Manor, NY 10510-8001

Tel: (914) 945-6000
Fax: (914) 332-0615

Mr. Raymond B. Ze, Chief Operating Officer
 December 3, 2003
 Page 2

amounts of \$140,138.76 and \$127,871.03 and (ii) under the DVD Disc Agreement for the third and fourth calendar quarters of 2002 in the respective amounts of \$24,468.86 and \$41,255.59, and represents and warrants that these amounts are accurate in all material respects. The sum of the CD Disc Agreement Arrears and DVD Disc Agreement Arrears is \$164,607.62 ("Disc Agreement Arrears").

3. Additionally, Licensee has failed to make timely payments for previous unpaid arrears under a prior workout agreement between Licensee, KPENV and U.S. Philips Corporation ("USPC") dated February 28, 2002, leaving an unpaid balance immediately due KPENV of \$656,424.66 ("Previous Workout Arrears").

4. The combined sum of the Disc Agreement Arrears and the Previous Workout Arrears without interest as of December 3, 2003 equals \$990,129.01 ("Total Arrears Amount").

OEM shall pay KPENV the Total Arrears Amount in monthly payments, with the first payment, due January 15, 2004 as follows:

Payment Due Date	Payment	Total Principal Paid	Interest Paid	Outstanding Balance
15-Jan-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Feb-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Mar-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Apr-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-May-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jun-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jul-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Aug-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Sep-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Oct-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Nov-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Dec-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
		\$23,253.21		
15-Jan-2005		\$18,902.56	\$4,950.65	\$971,826.45
15-Feb-2005	\$23,253.21	\$18,394.08	\$4,859.13	\$953,432.37
15-Mar-2005	\$23,253.21	\$18,486.05	\$4,767.16	\$934,946.32
15-Apr-2005	\$23,253.21	\$18,578.48	\$4,674.73	\$916,367.84
15-May-2005	\$23,253.21	\$18,671.37	\$4,581.84	\$897,696.47
15-Jun-2005	\$23,253.21	\$18,764.73	\$4,488.48	\$878,931.74
15-Jul-2005	\$23,253.21	\$18,858.55	\$4,394.66	\$860,073.19
15-Aug-2005	\$23,253.21	\$18,952.84	\$4,300.37	\$841,120.35

Mr. Raymond B. Zel, Chief Operating Officer
 December 3, 2003
 Page 3

15-Sep-2005	\$23,253.21	\$19,047.61	\$4,205.60	\$422,072.74
15-Oct-2005	\$23,253.21	\$19,142.85	\$4,110.36	\$402,929.89
15-Nov-2005	\$23,253.21	\$19,238.56	\$4,014.65	\$383,691.33
15-Dec-2005	\$23,253.21	\$19,334.75	\$3,918.46	\$364,358.58
15-Jan-2006	\$23,253.21	\$19,431.43	\$3,821.78	\$344,925.15
15-Feb-2006	\$23,253.21	\$19,528.58	\$3,724.63	\$325,396.57
15-Mar-2006	\$23,253.21	\$19,626.23	\$3,626.98	\$305,770.34
15-Apr-2006	\$23,253.21	\$19,724.36	\$3,529.85	\$288,045.98
15-May-2006	\$23,253.21	\$19,822.98	\$3,430.23	\$266,223.00
15-Jun-2006	\$23,253.21	\$19,922.09	\$3,331.12	\$246,300.91
15-Jul-2006	\$23,253.21	\$20,021.71	\$3,231.50	\$226,279.20
15-Aug-2006	\$23,253.21	\$20,121.81	\$3,131.40	\$206,157.39
15-Sep-2006	\$23,253.21	\$20,222.42	\$3,030.79	\$185,934.96
15-Oct-2006	\$23,253.21	\$20,323.54	\$2,929.67	\$165,611.43
15-Nov-2006	\$23,253.21	\$20,425.15	\$2,828.06	\$145,188.28
15-Dec-2006	\$23,253.21	\$20,527.28	\$2,725.93	\$124,659.00
15-Jan-2007	\$23,253.21	\$20,629.92	\$2,623.29	\$504,029.08
15-Feb-2007	\$23,253.21	\$20,733.05	\$2,520.15	\$483,296.02
15-Mar-2007	\$23,253.21	\$20,836.73	\$2,416.48	\$462,459.29
15-Apr-2007	\$23,253.21	\$20,940.91	\$2,312.30	\$441,518.37
15-May-2007	\$23,253.21	\$21,045.62	\$2,207.59	\$420,472.76
15-Jun-2007	\$23,253.21	\$21,150.85	\$2,102.36	\$399,321.91
15-Jul-2007	\$23,253.21	\$21,256.60	\$1,996.61	\$378,065.31
15-Aug-2007	\$23,253.21	\$21,362.88	\$1,890.33	\$356,702.43
15-Sep-2007	\$23,253.21	\$21,469.70	\$1,783.51	\$335,232.73
15-Oct-2007	\$23,253.21	\$21,577.05	\$1,676.16	\$313,655.68
15-Nov-2007	\$23,253.21	\$21,684.93	\$1,568.28	\$291,970.75
15-Dec-2007	\$23,253.21	\$21,793.36	\$1,459.85	\$270,177.39
15-Jan-2008	\$23,253.21	\$21,902.32	\$1,350.89	\$248,275.07
15-Feb-2008	\$23,253.21	\$22,011.83	\$1,241.38	\$226,263.24
15-Mar-2008	\$23,253.21	\$22,121.89	\$1,131.32	\$204,141.34
15-Apr-2008	\$23,253.21	\$22,232.50	\$1,020.71	\$181,908.84
15-May-2008	\$23,253.21	\$22,343.67	\$909.54	\$159,565.17
15-Jun-2008	\$23,253.21	\$22,455.38	\$797.83	\$137,109.79
15-Jul-2008	\$23,253.21	\$22,567.66	\$685.55	\$114,542.13
15-Aug-2008	\$23,253.21	\$22,680.50	\$572.71	\$91,861.63
15-Sep-2008	\$23,253.21	\$22,793.90	\$459.31	\$69,067.73
15-Oct-2008	\$23,253.21	\$22,907.87	\$345.34	\$46,159.66
15-Nov-2008	\$23,253.21	\$23,022.41	\$230.80	\$23,137.44
15-Dec-2008	\$23,253.21	\$23,137.52	\$115.69	\$0.00

Mr. Raymond B. Ze, Chief Operating Officer
December 3, 2003
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5. The Total Arrears Amount and interest thereon is in addition to and is not a substitute for any other payments due after January 1, 2003, in whole or in part, under the CD Agreement and the DVD Disc Agreement.

6. In view of KPENV's forbearance in not immediately enforcing its rights under the CD Disc Agreement and the DVD Disc Agreement and in agreeing to the payment schedule set forth in paragraph 2, OEM further agrees that:

(a) OEM shall not contest the Total Arrears Amount and interest thereon;

(b) OEM stipulates that with respect to the payments due under this New Workout Agreement, the Licensed Patents under the CD Disc Agreement and the DVD Disc Agreement are valid and infringed by the Licensed Products manufactured by OEM during the Arrears period, and OEM shall not contest the validity or infringement of the Licensed Patents with respect to the Total Arrears Amount (provided, however, that nothing herein shall prevent OEM from contesting the Licensed Patents with respect to sales of Licensed Products after the full and timely payment of all monies payable under paragraph 2);

(c) If OEM (i) fails to make any of the payments for the Total Arrears Amount as of the due date specified or (ii) if OEM fails to timely provide any of the quarterly royalty reports or timely make any of the quarterly royalty payments due thereon as specified in Article 5.04 of the CD Disc Agreement and Article 4.03 of the DVD Disc Agreement, and OEM fails to cure such error within ten (10) business days of written notice by KPENV then:

(i) The entire remaining unpaid balance of the Total Arrears Amount shall immediately become due and payable;

(ii) KPENV shall be entitled to injunctive relief as well as or confession of judgement for the entire unpaid portion of the Arrears Amount; and

(iii) KPENV shall be entitled to an award of reasonable counsel fees and costs for enforcement of this Workout Agreement.

7. OEM and KPENV shall treat the contents of this Workout Agreement as confidential information and shall not disclose it to third parties, except as may be necessary by either KPENV or OEM to enforce its rights hereunder in a governmental body or court of law.

8. In addition to the other remedies set forth in this Workout Agreement, KPENV shall have the option to terminate this Workout Agreement in the event OEM breaches any

Mr. Raymond B. Zer, Chief Operating Officer
December 3, 2003
Page 5

term hereof by providing written notice to OEM and OEM fails to cure such breach within ten (10) days of written notice by KPENV. In the event this termination option is exercised by KPENV, OEM shall be entitled to credit for payments made hereunder, but all other rights, remedies and defenses of KPENV shall be preserved. KPENV shall have the right to immediately assert claims (and take whatever legal action it deems appropriate) against OEM for the full amounts due (as opposed to the compromised amounts set forth herein), less credits to OEM for payments made hereunder.

9. OEM forever releases and discharges KPENV, its agents, servants, employees, directors, officers, lawyers, branches, parent, affiliates, subsidiaries, successors and assigns and all person, firms, corporations and organizations acting on KPENV behalf (collectively, the "KPENV Released Entities") of and from any and all losses, damages, claims, demands, liabilities, obligations, actions and causes of action, of any nature whatsoever in law or in equity, contribution or indemnity, which the OEM may have or claim to have against KPENV or any one or more of the KPENV Released Entities, as of December 3, 2003, of every nature and kind whatsoever, on account of or in any way touching, concerning, arising out of, founded upon or relating to (i) the CD Disc Agreement and the DVD Disc Agreement, (ii) the obligations of KPENV under the CD Disc Agreement and the DVD Disc Agreement or otherwise, (iii) this Second Workout Agreement, (iv) enforcement or negotiations of this Second Workout Agreement or the CD Disc Agreement and the DVD Disc Agreement, (v) the dealings of the parties to this Second Workout Agreement, and (vi) anything else whatsoever.

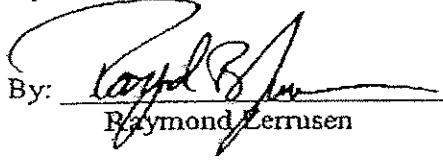
10. KPENV shall maintain its right of audit under the CD Disc Agreement and the DVD Disc Agreement and should any such audit reveal facts which are materially different than those represented by OEM to KPENV in negotiating this Second Workout Agreement, KPENV shall have the right to enforce the CD Disc Agreement and the DVD Disc Agreement and seek any additional monies which may be due and owing under the CD Disc Agreement and the DVD Disc Agreement on or before January 31, 2003 and discovered as a result of such audit.

Mr. Raymond B. Ze, Chief Operating Officer
December 3, 2003
Page 6

Please acknowledge OEM's approval and acceptance to the foregoing by completing the signature block below.

Optical Experts Manufacturing, Inc.

By:


Raymond B. Ze

Title: Chief Operating Officer

Date: 12/8/03

Koninklijke Philips Electronics N.V.

By:


H. SAKKERS

Title: By Proxy

Date: _____

PROMISSORY NOTE

Optical Experts Manufacturing Inc, a North Carolina corporation, having a business address at 8500 South Tryon Street, Charlotte, NC 28273 (the "Obligor"), for value received, hereby unconditionally and irrevocably promises to pay to the order of Koninklijke Philips Electronics N.V. ("Philips") at its offices in Briarcliff Manor, New York, in lawful money of the United States, without interest except as hereinafter provided, the principal sum of US\$ 990,129.01 (Nine Hundred and Ninety Thousand, One Hundred and Twenty Nine dollars), in the following monthly installments:

Payment Due Date Bottom of Form	Payment	Total Principal Paid	Interest Paid	Outstanding Balance
15-Jan-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Feb-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Mar-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Apr-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-May-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jun-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jul-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Aug-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Sep-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Oct-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Nov-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Dec-2004	\$4,950.65	\$0.00	\$4,950.65	\$990,129.01
15-Jan-2005	\$23,253.21	\$18,302.56	\$4,950.65	\$971,826.45
15-Feb-2005	\$23,253.21	\$18,394.08	\$4,859.13	\$953,432.37
15-Mar-2005	\$23,253.21	\$18,486.05	\$4,767.16	\$934,946.32
15-Apr-2005	\$23,253.21	\$18,578.48	\$4,674.73	\$916,367.84
15-May-2005	\$23,253.21	\$18,671.37	\$4,581.84	\$897,696.47
15-Jun-2005	\$23,253.21	\$18,764.73	\$4,488.48	\$878,931.74
15-Jul-2005	\$23,253.21	\$18,858.55	\$4,394.66	\$860,073.19
15-Aug-2005	\$23,253.21	\$18,952.84	\$4,300.37	\$841,120.35
15-Sep-2005	\$23,253.21	\$19,047.61	\$4,205.60	\$822,072.74
15-Oct-2005	\$23,253.21	\$19,142.85	\$4,110.36	\$802,929.89
15-Nov-2005	\$23,253.21	\$19,238.56	\$4,014.65	\$783,691.33
15-Dec-2005	\$23,253.21	\$19,334.75	\$3,918.46	\$764,356.58
15-Jan-2006	\$23,253.21	\$19,431.43	\$3,821.78	\$744,925.15
15-Feb-2006	\$23,253.21	\$19,528.58	\$3,724.63	\$725,396.57
15-Mar-2006	\$23,253.21	\$19,626.23	\$3,626.98	\$705,770.34
15-Apr-2006	\$23,253.21	\$19,724.36	\$3,528.85	\$686,045.98
15-May-2006	\$23,253.21	\$19,822.98	\$3,430.23	\$666,223.00
15-Jun-2006	\$23,253.21	\$19,922.09	\$3,331.12	\$646,300.91
15-Jul-2006	\$23,253.21	\$20,021.71	\$3,231.50	\$626,279.20
15-Aug-2006	\$23,253.21	\$20,121.81	\$3,131.40	\$606,157.39
15-Sep-2006	\$23,253.21	\$20,222.42	\$3,030.79	\$585,934.96
15-Oct-2006	\$23,253.21	\$20,323.54	\$2,929.67	\$565,611.43
15-Nov-2006	\$23,253.21	\$20,425.15	\$2,828.06	\$545,186.28
15-Dec-2006	\$23,253.21	\$20,527.28	\$2,726.93	\$524,659.00
15-Jan-2007	\$23,253.21	\$20,629.92	\$2,623.29	\$504,029.08

15-Feb-2007	\$23,253.21	\$20,733.06	\$2,520.15	\$483,296.02
15-Mar-2007	\$23,253.21	\$20,836.73	\$2,416.48	\$462,459.29
15-Apr-2007	\$23,253.21	\$20,940.91	\$2,312.30	\$441,518.37
15-May-2007	\$23,253.21	\$21,045.62	\$2,207.59	\$420,472.76
15-Jun-2007	\$23,253.21	\$21,150.85	\$2,102.36	\$399,321.91
15-Jul-2007	\$23,253.21	\$21,256.60	\$1,996.61	\$378,065.31
15-Aug-2007	\$23,253.21	\$21,362.88	\$1,890.33	\$356,702.43
15-Sep-2007	\$23,253.21	\$21,469.70	\$1,783.51	\$335,232.73
15-Oct-2007	\$23,253.21	\$21,577.05	\$1,676.16	\$313,655.68
15-Nov-2007	\$23,253.21	\$21,684.93	\$1,568.28	\$291,970.75
15-Dec-2007	\$23,253.21	\$21,793.36	\$1,459.85	\$270,177.39
15-Jan-2008	\$23,253.21	\$21,902.32	\$1,350.89	\$248,275.07
15-Feb-2008	\$23,253.21	\$22,011.83	\$1,241.38	\$226,263.24
15-Mar-2008	\$23,253.21	\$22,121.89	\$1,131.32	\$204,141.34
15-Apr-2008	\$23,253.21	\$22,232.50	\$1,020.71	\$181,908.84
15-May-2008	\$23,253.21	\$22,343.67	\$909.54	\$159,565.17
15-Jun-2008	\$23,253.21	\$22,455.38	\$797.83	\$137,109.79
15-Jul-2008	\$23,253.21	\$22,567.66	\$685.55	\$114,542.13
15-Aug-2008	\$23,253.21	\$22,680.50	\$572.71	\$91,861.63
15-Sep-2008	\$23,253.21	\$22,793.90	\$459.31	\$69,067.73
15-Oct-2008	\$23,253.21	\$22,907.87	\$345.34	\$46,159.86
15-Nov-2008	\$23,253.21	\$23,022.41	\$230.80	\$23,137.44
15-Dec-2008	\$23,253.21	\$23,137.52	\$115.69	\$0.00

Any installment on this Note not paid when due shall bear interest from its due date until paid in full at the rate of 2% per annum, payable on demand.

All payments on this Note shall be payable without setoff, counterclaim or deduction of any kind whatsoever.

If this Note becomes due and payable on a Saturday, Sunday, or public or other banking holiday under the laws of the State of New York, the maturity thereof shall be extended to the next succeeding business day.

If any of the following events (each being herein referred to as an "Event of Default"), shall occur: (i) the Obligor shall fail to pay any installment on this Note when due and such failure shall continue unremedied for five (5) days; (ii) the Obligor shall fail to pay any other amount owing hereunder and such failure shall continue unremedied for ten (10) days after written notice from Philips, or (iii) the Obligor shall make an assignment for the benefit of creditors, or any order shall be entered relating to the Obligor under any bankruptcy, reorganization, dissolution, or liquidation law or statute of any jurisdiction, whether now or hereafter in effect, whereby Obligor becomes or is adjudicated insolvent or bankrupt, or the Obligor shall petition or apply to any tribunal for any receiver of or any trustee for it or any substantial part of its property; then in any such event Philips may declare all of the then unpaid installments on this Note and all other amounts owing hereunder to be immediately due and payable; provided, however, that upon the happening of any event specified in clause (iii) above, all unpaid installments on this Note and all other amounts owing

hereunder shall become immediately due and payable without declaration or other notice to the Obligor.

If Philips institutes any action for the enforcement or collection of this Note and recovers on such action, the Obligor shall pay on demand all costs and expenses of such action including reasonable attorney's fees and costs.

The Obligor expressly waives any presentment, demand, protest, or other notice of any kind.

The obligation under this Note shall not be transferable by the Obligor without the written consent of Philips.

**EXCEPT AS OTHERWISE EXPRESSLY PROVIDED
HEREIN WITH RESPECT TO THE SECURITY INTEREST GRANTED
HEREUNDER, THIS NOTE SHALL BE GOVERNED BY THE LAWS OF
THE STATE OF NEW YORK, BOTH IN INTERPRETATION AND IN
PERFORMANCE.**

The Obligor hereby irrevocably submits to the jurisdiction of any state or federal court in the State of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Note. The Obligor hereby irrevocably consents to the jurisdiction of any such court in any such action and to the laying of venue in New York State. The Obligor hereby irrevocably waives, to the fullest extent permitted by applicable law, any objection to the laying of the venue of any such suit, action or proceeding brought in the aforesaid courts and hereby irrevocably waives any claim that any such suit or proceeding brought in any such court has been brought in an inconvenient forum. Notwithstanding the foregoing, nothing herein shall in any way affect the right of Philips to bring any action arising out of or relating to this Note in any competent court elsewhere having jurisdiction over the Obligor or its property.

Optical Experts Manufacturing,
Inc.

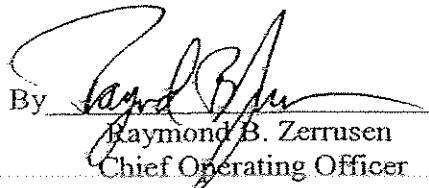
By 
Raymond B. Zerrusen
Chief Operating Officer

EXHIBIT E

PHILIPS

Philips Intellectual Property & Standards

VIA FEDERAL EXPRESS

Direct Dial: (914) 333-9622
E-Mail: william.lenihan@philips.com

Our File: 1203-1124

December 1, 2006

Mr. Raymond B. Zerrusen, Chief Operating Officer
Optical Experts Manufacturing, Inc.
8500 South Tryon Street
Charlotte, NC 28273

Re: CD Disc Patent License Agreement; DVD Video Disc and DVD ROM Disc Patent License Agreement and The Patent License Agreement for the Use of AC-3 Technology in the Manufacture of DVD-Video Discs

Dear Mr. Zerrusen:

Koninklijke Philips Electronics N.V. ("KPENV") and Optical Experts Manufacturing, Inc. ("Licensee") hereby confirm the following agreement ("2006 Payment Agreement") regarding the CD Disc Patent License Agreement, the DVD Video Disc and DVD ROM Disc Patent License Agreement and The Patent License Agreement for the Use of AC-3 Technology in the Manufacture of DVD-Video Discs ("CD, DVD & AC-3 Agreements") each having an effective date of July 1, 2002:

1. Pursuant to Clause 5.3, 4.03 and 3.02 of the CD, DVD & AC-3 Agreements, respectively, Licensee is required to provide KPENV a written statement setting forth all CD Discs, DVD Discs and DVD Discs incorporating AC-3 Technology purchased or manufactured by Licensee thirty days after the end of each calendar quarter to which royalties are due and to make royalty payments thirty days after the end of each calendar quarter. Pursuant to the findings of an audit of Licensee conducted by KPMG in October 2005, Licensee (i) failed to disclose all applicable discs purchased, manufactured or sold for the period July 1, 2000 through June 30, 2005 ("Underreported Products") and (ii) failed to make payment obligations scheduled for the 3rd & 4th Quarter 2000 & the 1st Quarter 2003, ("Missed Payments"). Licensee has asked KPENV (i) to forbear on the remedies available



Philips Electronics North America Corporation
345 Scarborough Road
P.O. Box 3001
Briarcliff Manor, NY 10510-8001

Tel: (914) 945-6000
Fax: (914) 332-0615

Mr. Raymond B. Zemben, Chief Operating Officer
 November 30, 2006
 Page 2

to KPENV under the CD, DVD & AC-3 Agreements (including termination of the CD, DVD & AC-3 Agreements and commencement of legal action for immediate payment) and (ii) to structure a payment schedule for all Underreported Products and Missed Payments.

2. As indicated in the above paragraph 1, KPMG has provided Licensee & KPENV with a report of the audit showing (i) Underreported Products and (ii) Missed Payments (\$45,389.00) for the period July 1, 2000 until June 30, 2005, and the (iii) audit fee (\$56,500). KPENV and Licensee have considered the audit report and have agreed that the amount due for the Underreported Products is \$1,567,694.12, bringing the subtotal of the foregoing amounts to \$1,669,583.12.

Additionally, Licensee shall pay interest on the previously unpaid (i) Underreported Products and (ii) Missed Payments for the period July 1, 2000 until June 30, 2005 in the amount of \$54,533.07, for a total due of \$1,724,116.19 (one million, seven hundred and twenty four thousand, one hundred and sixteen dollars and nineteen cents) ("2006 Payment Amount") and Licensee represents and warrants that this amount is accurate in all material respects.

No release shall be granted under any of the Licensed Patents to Licensee or its downstream customers until the 2006 Payment Amount is paid in full. However, if a partial release is granted by a court or operation of law, for evidentiary purposes, the installment payments will first be credited towards the royalties due on sales to the smallest customers prior to June 30, 2005, and be applied in ascending order to the largest customers, until all of the installment payments have been completed.

3. Licensee shall pay KPENV the 2006 Payment Amount in monthly installment payments (interest and principle) in the amount of \$49,388.39. The first of 36 consecutive monthly payments is due on or before January 15, 2007. To illustrate: the next scheduled monthly payment is due on or before February 15, 2007. Licensee will continue to make monthly installment payments until the completion of the 36th scheduled payment, which is due on or before December 15, 2009.

4. Concurrent with this 2006 Payment Agreement, Licensee shall execute a Promissory Note in the form attached hereto.

5. The 2006 Payment Amount and included interest is in addition to and is not a substitute for any other payments due, in whole or in part, under the CD, DVD & AC-3 Agreements.

6. In view of KPENV's forbearance in not immediately enforcing its rights under the CD, DVD & AC-3 Agreements and in agreeing to the payment schedule set forth in paragraph 3, Licensee further agrees that:

Mr. Raymond B. Zerrusen, Chief Operating Officer
 November 30, 2006
 Page 3

(a) KPENV will assist Licensee in its effort to recoup a portion of the 2006 Payment Amount by directing written notice to those customers Licensee believed had previously agreed to report and pay to KPENV any and all royalties due.

(b) Licensee stipulates that with respect to the payments due under this 2006 Payment Agreement, the Licensed Patents under the CD, DVD & AC-3 Agreements are valid and infringed by the Licensed Products manufactured by Licensee during the period July 1, 2000 until June 30, 2005, and Licensee shall not contest the validity or infringement of the Licensed Patents with respect to the 2006 Payment Amount (provided, however, that nothing herein shall prevent Licensee from contesting the Licensed Patents with respect to sales of Licensed Products after the full and timely payment of all monies payable under paragraph 2 & 3);

(c) If Licensee (i) fails to make any of the scheduled payments with regard to the 2006 Payment Amount as of the due date specified or (ii) if Licensee fails to timely provide any of the quarterly royalty reports or timely make any of the quarterly royalty payments due thereon as specified in Clause 5.3, 4.03 and 3.02 of the CD, DVD & AC-3 Agreements, and Licensee fails to cure such error within ten (10) business days of written notice by KPENV then:

(i) The entire remaining unpaid balance of the 2006 Payment Amount shall immediately become due and payable;

(ii) KPENV shall be entitled to injunctive relief as well as or confession of judgement for the entire unpaid portion of the 2006 Payment Amount; and

(iii) KPENV shall be entitled to an award of reasonable counsel fees and costs for enforcement of this 2006 Payment Agreement.

(d) With respect to royalty reports and payments due under the CD Agreement, Licensee has alleged that it does not infringe any of the CD Patents covering CD Audio discs or CD ROM, Mode 1 discs, beginning from December 1, 2005. Accordingly, Licensee shall report such discs but it shall not be a breach of this 2006 Payment Agreement if Licensee does not pay royalties on such CD Audio and CD ROM Mode 1 discs. Notwithstanding the foregoing, KPENV reserves all of its rights with respect to enforcement of the CD Agreement and any patents covering CD Audio and CD ROM, Mode 1 discs.

7. Licensee and KPENV shall treat the contents of this 2006 Payment Agreement as confidential information and shall not disclose it to third parties, except as may be necessary by either KPENV or Licensee to enforce its rights hereunder in a governmental body or court of law.

Mr. Raymond B. Zerrusen, Chief Operating Officer
 November 30, 2006
 Page 4

8. In addition to the other remedies set forth in this 2006 Payment Agreement, KPENV shall have the option to terminate this 2006 Payment Agreement in the event Licensee breaches any term hereof by providing written notice to Licensee and Licensee fails to cure such breach within ten (10) days of written notice by KPENV. In the event this termination option is exercised by KPENV, Licensee shall be entitled to credit for payments made hereunder, but all other rights, remedies and defenses of KPENV shall be preserved. KPENV shall have the right to immediately assert claims (and take whatever legal action it deems appropriate) against Licensee for the full amounts due (as opposed to the compromised amounts set forth herein), less credits to Licensee for payments made hereunder.

9. Licensee forever releases and discharges KPENV, its agents, servants, employees, directors, officers, lawyers, branches, parent, affiliates, subsidiaries, successors and assigns and all person, firms, corporations and organizations acting on KPENV behalf (collectively, the "KPENV Released Entities") of and from any and all losses, damages, claims, demands, liabilities, obligations, actions and causes of action, of any nature whatsoever in law or in equity, contribution or indemnity, which the Licensee may have or claim to have against KPENV or any one or more of the KPENV Released Entities, as of December 1, 2006, of every nature and kind whatsoever, on account of or in any way touching, concerning, arising out of, founded upon or relating to (i) CD, DVD & AC-3 Agreements, (ii) the obligations of KPENV under the CD, DVD & AC-3 Agreements or otherwise, (iii) this 2006 Payment Agreement, with exception being any proven already paid royalties as of the audit date June 30, 2006 (iv) enforcement or negotiations of this 2006 Payment Agreement or the CD, DVD & AC-3 Agreements, (v) the dealings of the parties to this 2006 Payment Agreement, and (vi) anything else whatsoever.

10. KPENV shall maintain its right of audit under the CD, DVD & AC-3 Agreements and should any such subsequent audit reveal facts which are materially different than those represented by Licensee to KPENV in negotiating this 2006 Payment Agreement, KPENV shall have the right to enforce the CD, DVD & AC-3 Agreements and seek any additional monies which may be due and owing under the CD, DVD & AC-3 Agreements and discovered as a result of such subsequent audit.

Mr. Raymond B. Zerrusen, Chief Operating Officer
November 30, 2006
Page 5

11. Please acknowledge OEM's approval and acceptance to the foregoing by completing the signature block below.

Optical Experts Manufacturing, Inc.

By: Raymond B. Zerrusen

Raymond Zerrusen

Title: Chief Executive Officer

Date: 12/1/06

Koninklijke Philips Electronics N.V.

By

R. PETERS

Title: BY PROXY

Date: _____

PROMISSORY NOTE

Optical Experts Manufacturing, a North Carolina Corporation, having a business address at 8500 South Tryon Street, Charlotte, North Carolina USA (the "Obligor"), for value received, hereby unconditionally and irrevocably promises to pay to the order of Koninklijke Philips Electronics N.V. ("Philips"), at its offices in Briarcliff Manor, New York, in lawful money of the United States, without interest except as hereinafter provided, the principal sum of US\$ **\$1,724,116.19** (one million, seven hundred and twenty four thousand, one hundred and sixteen dollars and nineteen cents), pursuant to the following payment schedule:

January 15, 2007	\$49,388.39	1
February 15, 2007	\$49,388.39	2
March 15 2007	\$49,388.39	3
April 15, 2007	\$49,388.39	4
May 15, 2007	\$49,388.39	5
June 15, 2007	\$49,388.39	6
July 15, 2007	\$49,388.39	7
August 15, 2007	\$49,388.39	8
September 15, 2007	\$49,388.39	9
October 15, 2007	\$49,388.39	10
November 15, 2007	\$49,388.39	11
December 15, 2007	\$49,388.39	12
January 15, 2008	\$49,388.39	13
February 15, 2008	\$49,388.39	14
March 15 2008	\$49,388.39	15
April 15, 2008	\$49,388.39	16
May 1, 2008	\$49,388.39	17
June 15, 2008	\$49,388.39	18
July 15, 2008	\$49,388.39	19
August 15, 2008	\$49,388.39	20
September 15, 2008	\$49,388.39	21
October 15, 2008	\$49,388.39	22
November 15, 2008	\$49,388.39	23

December 15, 2008	\$49,388.39	24
January 15, 2009	\$49,388.39	25
February 15, 2009	\$49,388.39	26
March 15 2009	\$49,388.39	27
April 15, 2009	\$49,388.39	28
May 15, 2009	\$49,388.39	29
June 15, 2009	\$49,388.39	30
July 15, 2009	\$49,388.39	31
August 15, 2009	\$49,388.39	32
September 15, 2009	\$49,388.39	33
October 15, 2009	\$49,388.39	34
November 15, 2009	\$49,388.39	35
December 15, 2009	\$49,388.39	36

Any installment on this Note not paid when due shall bear interest from its due date until paid in full at the rate of 2% per annum, payable on demand.

All payments on this Note shall be payable without setoff, counterclaim or deduction of any kind whatsoever.

If this Note becomes due and payable on a Saturday, Sunday, or public or other banking holiday under the laws of the State of New York, the maturity thereof shall be extended to the next succeeding business day.

If any of the following events (each being herein referred to as an "Event of Default"), shall occur: (i) the Obligor shall fail to pay any other amount owing hereunder and such failure shall continue unremedied for ten (10) days after written notice from Philips, or; (ii) the Obligor shall make an assignment for the benefit of creditors, or any order shall be entered relating to the Obligor under any bankruptcy, reorganization, dissolution, or liquidation law or statute of any jurisdiction, whether now or hereafter in effect, whereby Obligor becomes or is adjudicated insolvent or bankrupt, or the Obligor shall petition or apply to any tribunal for any receiver of or any trustee for it or any substantial part of its property; then in any such event Philips may declare all of the then unpaid installments on this Note and all other amounts owing hereunder to be immediately due and payable; provided, however, that upon the happening of any event specified in clause (ii) above, all unpaid installments on this Note and all other amounts

owing hereunder shall become immediately due and payable without declaration or other notice to the Obligor.

If Philips institutes any action for the enforcement or collection of this Note and recovers on such action, the Obligor shall pay on demand all costs and expenses of such action including reasonable attorney's fees and costs.

The Obligor expressly waives any presentment, demand, protest, or other notice of any kind.

The obligation under this Note shall not be transferable by the Obligor without the written consent of Philips.

**EXCEPT AS OTHERWISE EXPRESSLY PROVIDED HEREIN
WITH RESPECT TO THE SECURITY INTEREST GRANTED HEREUNDER,
THIS NOTE SHALL BE GOVERNED BY THE LAWS OF THE STATE OF
NEW YORK, BOTH IN INTERPRETATION AND IN PERFORMANCE.**

The Obligor hereby irrevocably submits to the jurisdiction of any state or federal court in the State of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Note. The Obligor hereby irrevocably consents to the jurisdiction of any such court in any such action and to the laying of venue in New York State. The Obligor hereby irrevocably waives, to the fullest extent permitted by applicable law, any objection to the laying of the venue of any such suit, action or proceeding brought in the aforesaid courts and hereby irrevocably waives any claim that any such suit or proceeding brought in any such court has been brought in an inconvenient forum. Notwithstanding the foregoing, nothing herein shall in any way affect the right of Philips to bring any action arising out of or relating to this Note in any competent court elsewhere having jurisdiction over the Obligor or its property.

Optical Experts Manufacturing, Inc.

By Raymond B. Dunn CEO
Title

EXHIBIT F

US005068846C1

(12) EX PARTE REEXAMINATION CERTIFICATE (5512th)

United States Patent

Kramer

(10) Number: US 5,068,846 C1

(45) Certificate Issued: Sep. 19, 2006

(54) REFLECTIVE, OPTICAL RECORD CARRIER

(75) Inventor: Pieter Kramer, Eindhoven (NL)

(73) Assignee: U.S. Philips Corporation, New York, NY (US)

Reexamination Request:

No. 90/007,336, Dec. 8, 2004

Reexamination Certificate for:

Patent No.: 5,068,846
 Issued: Nov. 26, 1991
 Appl. No.: 06/858,550
 Filed: Apr. 23, 1986

Related U.S. Application Data

(63) Continuation of application No. 06/146,554, filed on May 5, 1980, now abandoned, which is a continuation of application No. 05/949,919, filed on Oct. 10, 1978, now abandoned, which is a continuation of application No. 05/772,914, filed on Feb. 28, 1977, now abandoned, which is a continuation of application No. 05/344,867, filed on Mar. 26, 1973, now abandoned.

(30) Foreign Application Priority Data

Sep. 2, 1972 (NL) 7211999
 (51) Int. Cl. G11B 7/24 (2006.01)
 (52) U.S. Cl. 369/275.1; 369/109.01;
 369/275.5

(58) Field of Classification Search 365/113, 365/120; 369/93-94, 107, 275.1, 114, 275.4, 369/125, 275.5, 109.1

See application file for complete search history.

(56)

References Cited

U.S. PATENT DOCUMENTS

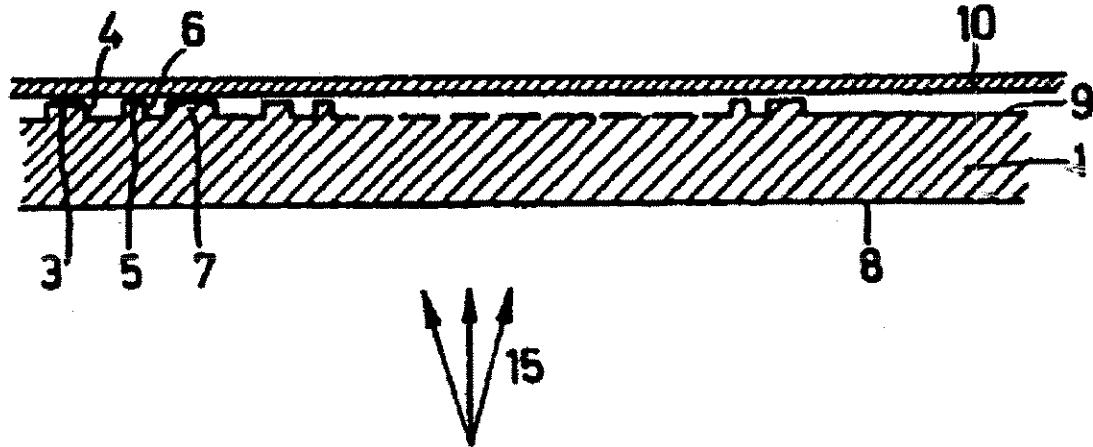
1,898,040 A	2/1933	Eldred
3,174,140 A	3/1965	Hagopian et al.
3,198,880 A	8/1965	Toulon
3,626,386 A	12/1971	Feinlieb
3,635,551 A	1/1972	Szymber

Primary Examiner—Minh Nguyen

(57)

ABSTRACT

A record carrier for information, for example video and/or audio information, in the form of a disk-shaped carrier substrate provided with an optical structure in accordance with the information is described. By making the optical structure radiation-reflecting and the substrate radiation-transmitting, whilst the surface of the substrate more remote from the optical structure forms both the entrance face and the exit face for the read radiation, and by coating a surface of the optical structure more remote from the substrate with an additional layer, a simple record-carrier is obtained which is well protected against dust particles and damage.



US 5,068,846 C1

1

EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307
NO AMENDMENTS HAVE BEEN MADE TO
THE PATENT

2

AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

5

The patentability of claims 1 to 7 is confirmed.

* * * * *

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

KONINKLIJKE PHILIPS ELECTRONICS
N.V. and U.S. PHILIPS CORPORATION,

Plaintiffs,

v.

OPTICAL EXPERTS MANUFACTURING,
INC; BRILLIANCE AUDIO, INC.;
RAYMOND BERNARD ZERRUSEN;
CLIFFORD STEVEN BOYD; and JOHN
DOES NO. 1 THROUGH 100,

Defendants.

Civil Action No. 08-cv-04071 (KMK)

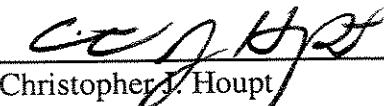
CERTIFICATE OF SERVICE

STATE OF NEW YORK)
)SS.:
COUNTY OF NEW YORK)

I, Christopher J. Houpt, a member of the Bar of this Court, hereby certify that on Thursday, June 12, 2008, I caused a true copy of Plaintiffs' First Amended Complaint to be served by hand delivery upon

Ivan Kavrukov
COOPER & DUNHAM LLP
1185 Avenue of the Americas
New York, New York 10036

New York, New York
June 12, 2008


Christopher J. Houpt

OFFICE COPY

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

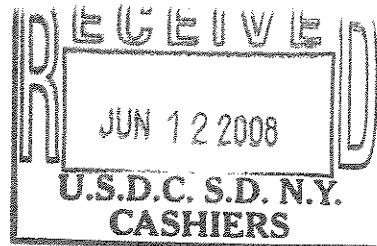
KONINKLIJKE PHILIPS ELECTRONICS
N.V. and U.S. PHILIPS CORPORATION,

Plaintiffs,

v.

OPTICAL EXPERTS
MANUFACTURING, INC.; BRILLIANCE
AUDIO, INC.; CADMUS
COMMUNICATIONS CORPORATION;
RAYMOND BERNARD ZERRUSEN, an
individual; CLIFFORD STEVEN BOYD,
an individual; and John Does No. 1 through
100,

Defendants.



Civil Action No. 08-cv-4071 (KMK)

FIRST AMENDED COMPLAINT

Plaintiffs Koninklijke Philips Electronics N.V. and U.S. Philips Corporation allege as follows based upon knowledge as to their own acts, and upon information and belief as to all other allegations:

1. This is an action for breach of contract under the laws of the State of New York and, in the alternative, patent infringement under 35 U.S.C. 271 *et seq.*

The Parties

2. Plaintiff Koninklijke Philips Electronics N.V. is a corporation organized under the laws of The Netherlands with its principal place of business in Amsterdam, the Netherlands. Plaintiff U.S. Philips Corporation is a corporation organized under the laws of Delaware with its principal place of business at 3000 Minuteman Road, M/S 109, Andover, MA 01810, and an office at 345 Scarborough Rd., Briarcliff Manor, New York. Plaintiffs Koninklijke Philips Electronics N.V. and U.S. Philips Corporation are collectively referred to as "Philips."

3. Defendant Optical Experts Manufacturing, Inc. ("OEM") is a corporation organized under the laws of North Carolina with a principal place of business at 8500 South Tryon Street, Charlotte, NC.

4. Defendant Brilliance Audio, Inc. ("Brilliance") is a corporation with a place of business at 1704 Eaton Drive, Grand Haven, MI 49417.

5. Defendant Cadmus Communications Corporation ("Cadmus") is a corporation with a principal place of business at 1700 Diagonal Rd. Suite 320, Alexandria, Virginia 22314-2840.

6. Defendant Raymond Bernard Zerrusen ("Zerrusen") is an individual residing at 13907 Grand Palisades Pkwy, Charlotte, NC 28278. Zerrusen is the Owner and President of OEM.

7. Defendant Clifford Steven Boyd ("Boyd") is an individual residing at 2527 Winterbrooke Dr., Matthews, NC 28105. Boyd is the Chief Operating Officer and Executive Vice President of OEM.

8. Defendants John Doe No. 1 through John Doe No. 100 inclusive are or may be OEM-related entities or OEM customers, the identities of which are unknown at this time.

Jurisdiction and Venue

9. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1332, 1338(a), and 1367(a), and 35 U.S.C. §§ 271 and 281.

10. The amount in controversy exceeds the sum or value of \$75,000, exclusive of interest and costs.

11. Venue in this Court is proper under 28 U.S.C. §§ 1391(b) and (c) and 1400(b).

12. This Court has personal jurisdiction over OEM, Brilliance, Cadmus, Zerrusen, and Boyd under the New York Long Arm Statute, N.Y. C.P.L.R. 301, 302, 317 (McKinney 2007) and Fed. R. Civ. P. 4(e)(1).

13. OEM has committed acts of patent infringement in this judicial district.
14. Brilliance has committed acts of patent infringement in this judicial district.
15. Cadmus has committed acts of patent infringement in this judicial district.
16. Zerrusen is actively involved in the control and management of OEM.
17. Zerrusen has committed acts of patent infringement in this judicial district, including but not limited to directing and controlling patent infringement by OEM.
18. Boyd is actively involved in the control and management of OEM.
19. Boyd has committed acts of patent infringement in this judicial district, including but not limited to directing and controlling patent infringement by OEM.
20. OEM has irrevocably waived any objections to the jurisdiction, process, and venue of this Court, and to the effectiveness, execution, and enforcement of any order or judgment (including a default judgment) with respect to the Agreement and Side Letter identified in ¶ 30 of this Complaint.
21. OEM, Brilliance, Cadmus, Zerrusen, and Boyd are subject to personal jurisdiction in this district because they purposefully engaged in activities that gave rise to this claim for patent infringement, which were directed at residents of New York and this judicial district.
22. OEM, Brilliance, Cadmus, Zerrusen, and Boyd voluntarily placed unlicensed CD-Discs (as defined in ¶ 31) into the stream of U.S. commerce, conscious that New York and this judicial district were the likely destination of a substantial quantity of those unlicensed CD-Discs.

Facts Related to Philips

23. Philips and its related companies have engaged for many years in research and development ("R&D") of systems in which signals encoded in digital form and stored on a disc are read and reproduced by means of devices using an optical read-out beam.

24. One of the achievements of such R&D efforts was a revolutionary high-fidelity sound storage and reproduction system, known as the Compact Disc Digital Audio System (“CD-Audio System”).

25. Philips and Sony Corporation (“Sony”) developed the Compact Disc Data System (“CD-ROM System”) from the CD-Audio System.

26. Philips and Sony also developed a multi-session CD system, known as the Enhanced Music Compact Disc System (“Enhanced Music CD System” or “CD Extra System”).

27. The CD-Audio System, CD-ROM System, and CD Extra System are referred to collectively in this Complaint as the “CD Systems”.

28. U.S. Philips Corporation is the owner by assignment of all right, title, and interest in U.S. Patent No. 5,068,846, entitled “Reflective, Optical Record Carrier,” relating to the CD Systems (“the ‘846 patent”). The ‘846 patent was duly and legally issued by the U.S. Patent and Trademark Office on November 26, 1991, after full and fair examination, and is valid and subsisting in the United States. A true copy of the ‘846 patent is attached as **Exhibit A**.

29. The CD Systems are defined by “Standard Specifications”, namely, the CD-Audio Standard Specifications, CD-Audio Maxi-Single Standard Specifications, CD-ROM Standard Specifications, CD-ROM-XA Specifications, and the Enhanced Music CD Standard Specifications.

Facts Related to OEM

30. Effective July 1, 2002, Philips and OEM entered into a “CD Disc Patent License Agreement” whereby Philips granted OEM worldwide rights under certain patents related to CD Systems, including for the territory of the United States, its territories, and possessions (the

“Agreement”) (**Exhibit B**). Effective July 1, 2002, Philips and OEM entered into a “Side Letter” that constitutes a legally binding and integral part of the Agreement (**Exhibit C**).

31. The Agreement identifies the Standard Specifications for CD System discs, specifically, “CD-Audio Discs”, “CD-Audio Maxi-Singles”, “CD-ROM Discs”, “CD-ROM Disc mode 1”, “CD-ROM Disc mode 2”, “CD-ROM XA Disc sub-mode 1”, “CD-ROM XA Disc sub-mode 2”, “CD Extra Discs”, “CD Extra Discs sub-mode 1”, and “CD Extra Discs sub-mode 2”. Such CD System discs are referred to collectively in this Complaint as “CD-Discs”.

32. Paragraph 1.23 of the Agreement defines “Licensed Patents” as “any one or more of the essential patents for the manufacture and/or sale of the various types of CD-Discs”, breaks out such patents into Categories I through III, and incorporates the specific patents listed in Annexes A1 through A8. Under ¶ 1.23 of the Agreement, Licensed Patents identified in Annex A1 cover all CD-Discs, in Categories I through III.

33. The ‘846 patent was listed in Annex A1 when OEM signed the Agreement and is currently listed in Annex A1, and therefore is a Licensed Patent applicable to all CD-Discs manufactured and/or sold by OEM under the Agreement.

34. Under ¶ 1.23 of the Agreement, Philips and OEM agreed that Philips would commission an independent expert to review the patents listed in Annexes A1 through A8 to confirm that each patent is “essential” to the manufacture and sale of CD-Discs made according to the Standard Specifications. Philips did so.

35. Under ¶ 1.23 of the Agreement, the term “essential” as used in relation to Licensed Patents means “patents, the use of which is necessary (either directly or as a practical matter) for compliance with the Standard Specifications defining the relevant CD System(s).”

36. The independent expert commissioned by Philips determined that the '846 patent is an essential patent and is properly listed in Annex A1 of the Agreement.

37. Paragraph 1.22 of the Agreement defines "Licensed Product(s)" by eleven "Options", Option A through K, "as selected by Licensee, manufactured and/or sold in accordance with the provisions hereof, which are duly reported and on which the royalties due hereunder are paid in accordance with the provisions of this Agreement." Each Option corresponds to a different type of CD-Disc defined in ¶¶ 1.2 through 1.11 of the Agreement, made in compliance with the Standard Specifications for each type of CD-Disc defined in ¶¶ 1.12 through 1.16 of the Agreement. For example, Option A is "CD-Audio Discs and/or CD-Audio Maxi Singles" defined in ¶¶ 1.2 and 1.3, respectively, made in compliance with the ¶¶ 1.12 and 1.13 Standard Specifications, and Option C is "CD-ROM Discs mode 1" defined in ¶ 1.5, made in compliance with the ¶ 1.14 Standard Specifications.

38. OEM selected all Licensed Products, namely, Options A through K.

39. Under ¶ 2.1 of the Agreement, Philips granted to OEM "a non-exclusive, non-transferable license under the Licensed Patents" (listed in the Annexes corresponding to the Options selected by OEM) "to manufacture Licensed Products" corresponding to Options A-K (as selected by OEM), "in accordance with the . . . Standard Specifications" set forth in ¶¶ 1.12 through 1.16 of the Agreement, within the United States and its territories and possessions, "and to sell or otherwise dispose of such Licensed Products so manufactured in all countries of the world."

40. Under ¶ 5.2 of the Agreement, OEM promised to "pay to Philips a royalty for each CD-Disc sold or otherwise disposed of by Licensee, any of Licensee's Associated Companies [as

defined in ¶ 1.24] or an agent of Licensee, in any country where at least one of the Licensed Patents essential to the type(s) of CD-Discs as selected by Licensee . . . exists.”

41. The ‘846 patent exists in the United States, and has existed at all times relevant to this action.

42. With respect to the royalty required by the Agreement, OEM agreed to pay Philips the “Standard Rate” of 3 cents (3¢) per relevant CD-Disc covered by this Complaint, as defined in ¶ 5.2 of the Agreement.

43. With respect to CD-Discs sold on or after July 1, 2002, Philips permitted OEM to pay the “Compliance Rate” of 1.75 cents (1.75¢) per relevant CD-Disc covered by this Complaint, also as defined in ¶ 5.2 of the Agreement, provided that OEM meets the “Compliance Requirements” specified in the Agreement and Side Letter.

44. Paragraph 5.2 of the Agreement further provides that “[i]n the event that Licensee fails to comply at any time with any of its obligations under this Agreement, the Standard Rates, as applicable, shall apply to Licensee’s manufacture and sale of CD-Discs instead of the Compliance Rates, as applicable, with immediate effect from the first day of the reporting period to which the occurrence of non-compliance relates until such moment that Philips confirms in writing to Licensee that Licensee’s non-compliance has been remedied in full.”

45. Paragraphs 5.3 and 5.10 of the Agreement require OEM to submit quarterly “Royalty Reporting Forms” to Philips listing all CD-Discs that it manufactures and sells, and to keep complete and accurate books and records relating to OEM’s manufacture and sale or other disposal of CD-Discs.

46. On December 8, 2003, Philips and OEM entered into a “Second Workout Agreement” relating in part to the Agreement (**Exhibit D**). The Second Workout Agreement reflects the facts

that OEM failed to make certain royalty payments under the Agreement, failed to pay certain arrearages under a February 28, 2002 Workout Agreement, asked Philips to forbear its remedies under the Agreement and to restructure payment for the unpaid royalties due and owing by OEM to Philips, and Philips and OEM so agreed. Under the Second Workout Agreement, OEM agreed to make monthly payments to Philips through December 2008. Such payments are due no later than the 15th day of each month. The Second Workout Agreement provides that if OEM fails to make timely payments under such agreement or the Agreement, or fails to provide timely royalty reports under the Agreement, and fails to cure as provided in the Second Workout Agreement, (1) the entire remaining unpaid balance under the Second Workout Agreement shall immediately become due and payable, (2) Philips shall be entitled to injunctive relief and/or confession of judgment for such unpaid balance, and (3) Philips shall be entitled to an award of its reasonable attorneys' fees and costs for enforcement of the Second Workout Agreement.

47. On December 1, 2006, Philips and OEM entered into a "2006 Payment Agreement" relating in part to the Agreement (**Exhibit E**). The 2006 Payment Agreement reflects the facts that OEM failed to disclose all applicable discs purchased, manufactured, or sold for a certain period and failed to make certain payments, asked Philips to forbear its remedies under the Agreement and to restructure OEM's payments, and Philips and OEM so agreed. Under the 2006 Payment Agreement, OEM agreed to pay interest on unpaid amounts due under such agreement, and OEM agreed to make monthly payments to Philips through December 2009. Such payments are due no later than the 15th day of each month. The 2006 Payment Agreement provides that if OEM fails to make timely payments under such agreement or the Agreement, or fails to provide timely royalty reports under the Agreement, and fails to cure as provided in the 2006 Payment Agreement, (1) the entire remaining unpaid balance under the 2006 Payment

Agreement shall immediately become due and payable, (2) Philips shall be entitled to injunctive relief and/or confession of judgment for such unpaid balance, and (3) Philips shall be entitled to an award of its reasonable attorneys' fees and costs for enforcement of the 2006 Payment Agreement.

Facts Relating to Breach of Contract Claim

48. OEM selected Licensed Product Options A-K. To be Licensed Products, selected CD-Discs must be manufactured and sold in compliance with the corresponding Standard Specifications and the provisions of the Agreement, such sales must be reported to Philips, and royalties for the sale of such CD-Discs must be paid to Philips. For example, a CD-Audio Disc is defined by ¶ 1.2 of the Agreement to "mean a Disc [as defined in ¶ 1.1 of the Agreement] comprising audio information encoded in digital form, which is optically readable by a CD-Audio Player [as defined in ¶ 1.18 of the Agreement] and which conforms to the CD-Audio Standard Specifications [as defined in ¶ 1.12 of the Agreement]." Paragraph 1.12 defines the CD-Audio Standard Specifications to "mean the specifications for the CD-Audio System [as defined in the second "Whereas" clause of the Agreement], including, if applicable, the Subcode/Control and Display System, Channels R . .W, chapter 5.8, the CD-TEXT mode, as made available, modified or extended from time to time."

49. Under ¶ 2.1 of the Agreement, OEM is licensed only to manufacture selected Licensed Products "in accordance with the relevant CD Standard Specifications and to sell or otherwise dispose of such Licensed Products so manufactured in all countries of the world." (Emphasis added.)

50. Because the '846 patent exists in the United States, under ¶ 5.2 of the Agreement, OEM must pay Philips either the Standard Rates or the Compliance Rates "for each CD-Disc sold or otherwise disposed of" by OEM, its associated companies, or its agents in the U.S.

51. Beginning in or about the 3rd Quarter 2002, OEM began paying royalties under the Agreement according to the Compliance Rates, for the manufacture and sale of relevant CD-Discs (1.75 cents (1.75¢) per disc) in the United States.

52. Beginning in or about December 1, 2005, OEM ceased paying royalties for all CD-Discs made and sold in the U.S.

53. After the 4th Quarter of 2005, OEM has continued to make and sell the following CD-Discs in the U.S., without providing royalty reports or paying royalties to Philips:

- a. at least 30 million CD-Discs.

54. The CD-Discs made and sold by OEM after it stopped paying royalties to Philips have been and are available for purchase on the open market in the U.S., and within this district.

55. OEM does not contest that the CD-Discs made and sold in the U.S. by OEM after it stopped paying royalties to Philips comply with the relevant Standard Specifications.

56. OEM has failed to submit quarterly "Royalty Reporting Forms" to Philips listing all CD-Discs that it manufactures and sells, and/or to keep complete and accurate books and records, relating to OEM's manufacture and sale or other disposal of all CD-Discs in the U.S., as required by ¶¶ 5.3 and 5.10 of the Agreement.

57. OEM has failed to make payments due to Philips under the Second Workout Agreement and the 2006 Payment Agreement. The last installments received by Philips from OEM were the payments due October 15, 2007. Under the Second Workout Agreement, OEM owes Philips monthly payments of \$23,253.21 for November 15, 2007 through December 15, 2008. Under

the 2006 Payment Agreement, OEM owes Philips monthly payments of \$49,388.39 for November 15, 2007 through December 15, 2009.

Facts Relating to Patent Infringement Claim

58. The CD-Discs made and sold by OEM, Zerrusen, and Boyd in the U.S. without paying royalties to Philips fall within the claims of the '846 patent.

59. OEM's license to make and sell such CD-Discs in the U.S. is contingent upon OEM's payment of royalties to Philips. As set forth in this Complaint, OEM is in material breach of the Agreement.

60. As set forth in this Complaint, OEM, Zerrusen, and Boyd are making and selling CD-Discs covered by the '846 patent in the U.S. without paying royalties to Philips.

61. Zerrusen personally, actively, and knowingly controlled and directed OEM in making and selling CD-Discs covered by the '846 patent in the U.S. without paying royalties to Philips. Zerrusen knew that his actions would induce OEM to make and sell CD-Discs covered by the '846 patent.

62. Zerrusen intended to avoid personal liability for his acts of patent infringement by acting as OEM in making and selling CD-Discs covered by the '846 patent. Zerrusen is the alter ego of OEM.

63. Boyd personally, actively, and knowingly controlled and directed OEM in making and selling CD-Discs covered by the '846 patent in the U.S. without paying royalties to Philips. Boyd knew that his actions would induce OEM to make and sell CD-Discs covered by the '846 patent.

64. Boyd intended to avoid personal liability for his acts of patent infringement by acting as OEM in making and selling CD-Discs covered by the '846 patent. Boyd is the alter ego of OEM.

65. Because OEM has not paid royalties to Philips and is in material breach of the Agreement, as set forth in this Complaint, the CD-Discs made and sold by OEM since the breach began are not Licensed Products, and are not licensed, under the '846 patent.

66. Brilliance has purchased from OEM unlicensed CD-Discs that are covered by the '846 patent.

67. Brilliance uses, sells, and/or offers to sell CD-Discs in the U.S. purchased from OEM and covered by the '846 patent without a license from Philips and/or without paying royalties to Philips.

68. Cadmus has purchased from OEM unlicensed CD-Discs that are covered by the '846 patent.

69. Cadmus uses, sells, and/or offers to sell CD-Discs in the U.S. purchased from OEM and covered by the '846 patent without a license from Philips and/or without paying royalties to Philips.

70. The John Doe Defendants are making and/or selling CD-Discs covered by the '846 patent in the U.S. without a license from Philips under the Licensed Patents, and/or without paying royalties to Philips.

Count I
Breach of Contract
Asserted Against All Defendants Except Brilliance and Cadmus

71. Plaintiff repeats and realleges each and every allegation set forth in this Complaint.

72. The Agreement is a valid and subsisting agreement under New York law between Philips and OEM. The Agreement is supported by adequate consideration. Neither Philips nor OEM has terminated the Agreement.

73. In ¶ 13.7 of the Agreement, Philips and OEM agreed that New York law controls the construction of the Agreement.

74. OEM has materially breached the Agreement by failing to pay royalties on its manufacture and sale of CD-Discs, as set forth in this Complaint.

75. Zerrusen and Boyd intentionally induced OEM to breach the Agreement.

76. OEM has materially breached the Agreement in other ways, the details of which are unknown at this time.

77. In view of OEM's breach of the Agreement, Philips is entitled to receive royalties for OEM's manufacture and sale in the U.S. of CD-Discs after the date identified in ¶ 52 at the Standard Rates (3 cents (3¢) per disc for CD-ROM Discs).

78. OEM has materially breached the Agreement by failing to provide accurate audit statements to Philips listing all CD-Discs that it manufactures and sells, failing to submit quarterly "Royalty Reporting Forms" to Philips, and/or failing to keep complete and accurate books and records relating to OEM's manufacture and sale or other disposal of CD-Discs in the U.S., in breach of ¶ 5.2, 5.3, 5.5, and/or 5.10 of the Agreement.

79. Under ¶ 5.7 of the Agreement, Philips is entitled to interest on all unpaid royalties owed to Philips by OEM, accruing at the rate of 2% (two percent) per month, or the maximum amount permitted by applicable law, whichever is lower.

80. Under ¶ 13.5 of the Agreement, OEM agreed that neither Philips' failure nor delay in enforcing any provision of the Agreement shall constitute a waiver of such provision or of Philips' right to enforce any provision of the Agreement.

81. The Second Workout Agreement and 2006 Payment Agreement are valid and subsisting agreements between Philips and OEM, and are supported by adequate consideration. Neither Philips nor OEM has terminated such agreements.

82. OEM has materially breached the Second Workout Agreement and 2006 Payment Agreement by failing to make the payments due under such agreements on and after November 15, 2007. Philips is entitled to such payments.

83. In view of OEM's breach of the Agreement, the Second Workout Agreement, and/or the 2006 Payment Agreement, the entire remaining unpaid balances under the Second Workout Agreement and the 2006 Payment Agreement are now immediately due and payable, and Philips is entitled to injunctive relief and/or confession of judgment for such unpaid balances, and an award of its reasonable attorneys' fees and costs for enforcement of such agreements.

84. Philips has suffered monetary and other damages, in an as-yet undetermined amount, as the direct and proximate result of OEM's material breach of the Agreement, Second Workout Agreement, and/or 2006 Payment Agreement.

85. Philips has suffered monetary and other damages, in an as-yet undetermined amount, as the direct and proximate result of the inducement to breach the Agreement by Zerrusen and Boyd.

Count II
Patent Infringement
Asserted Against All Defendants

86. Plaintiff repeats and realleges each and every allegation set forth in this Complaint.

87. In the alternative to Philips' breach of contract claim with respect to the Agreement, OEM, Brilliance, Cadmus, Zerrusen, and Boyd have infringed and are continuing to infringe, literally and/or under the doctrine of equivalents, the '846 patent by practicing one or more claims of the '846 patent in their manufacture, use, offering for sale, sale, and/or importation of products, and/or by inducing or contributing to the infringement of the '846 patent, under 35 U.S.C. § 271.

88. The John Doe Defendants have infringed and are continuing to infringe, literally and/or under the doctrine of equivalents, the '846 patent by practicing one or more claims of the '846 patent in their manufacture, use, offering for sale, sale, and/or importation of products, and/or by inducing or contributing to the infringement of the '846 patent, under 35 U.S.C. § 271.

89. The '846 patent is valid and subsisting and is entitled to a presumption of validity under 35 U.S.C. § 282.

90. U.S. Philips Corporation is the assignee of all rights, title, and interest in and to the '846 patent and possesses all rights of recovery under the '846 patent.

91. A Reexamination Request for the '846 patent was filed in the U.S. Patent and Trademark Office on December 8, 2004. Ex Parte Reexamination Certificate No. US 5,068,846 C1 (the "Reexamination Certificate"), confirming the patentability of claims 1 through 7 of the '846 patent, was issued by the U.S. Patent and Trademark Office on September 19, 2006. A true copy of the Reexamination Certificate is attached as **Exhibit F**.

92. OEM, Zerrusen, and Boyd have had knowledge of the '846 patent at all times relevant to this action.

93. The infringement of the '846 patent by OEM, Zerrusen, and Boyd has been and continues to be willful, and therefore Philips is entitled to treble damages under 35 U.S.C. § 284.

94. Philips has suffered monetary and other damages in an as-yet undetermined amount, and irreparable injury, as the direct and proximate result of the infringement of the '846 patent by OEM, Brilliance, Cadmus, Zerrusen, and Boyd. Philips has no adequate remedy at law. Unless enjoined, OEM, Brilliance, Cadmus, Zerrusen, and Boyd will continue to infringe and to damage Philips irreparably.

Prayer for Relief

Wherefore, Philips requests that this Court enter judgment in its favor on each and every claim for relief set forth above and award it relief, including but not limited to a judgment and order as follows:

- A. holding Defendant Optical Experts Manufacturing, Inc. liable for breach of contract, specifically, the Agreement, the Second Workout Agreement, and/or the 2006 Payment Agreement;
- B. in the alternative with respect to Philips' breach of contract claim relating to the Agreement, holding Defendant Optical Experts Manufacturing, Inc. liable for patent infringement;
- C. holding Brilliance and Cadmus liable for patent infringement;
- D. holding the John Doe Defendants jointly and severally liable for patent infringement;
- E. holding Zerrusen and Boyd personally liable for actively inducing OEM to infringe under 35 U.S.C. § 271(b);
- F. holding that OEM was merely the alter ego of Zerrusen and Boyd, and holding Zerrusen and Boyd personally liable for direct infringement under 35 U.S.C. § 271(a);
- G. directing OEM, Zerrusen, and Boyd to pay to Philips its actual damages for:
 - a. OEM's breach of contract; or

b. in the alternative with respect to Philips' breach of contract claim relating to the Agreement, OEM, Zerrusen, and Boyd's patent infringement, under 35 U.S.C. § 284;

H. directing Brilliance and Cadmus to pay Philips its actual damages for patent infringement under 35 U.S.C. § 284;

I. directing the John Doe Defendants to pay to Philips its actual damages for patent infringement, under 35 U.S.C. § 284;

J. directing OEM, Zerrusen, and Boyd to pay unpaid royalties at the Standard Rates;

K. directing OEM to pay the entire remaining unpaid balances under the Second Workout Agreement and the 2006 Payment Agreement, and directing OEM to confess judgment for such amounts;

L. directing OEM, Brilliance, Cadmus, Zerrusen, Boyd, and the John Doe Defendants to pay Philips' other damages, including but not limited to direct, consequential, indirect, compensatory, and punitive damages;

M. directing OEM, Zerrusen, and Boyd to pay interest on all unpaid royalties;

N. holding that OEM's, Zerrusen's, Boyd's, and the John Doe Defendants' patent infringement has been and continues to be willful, and trebling Philips' damages;

O. enjoining OEM, Brilliance, Cadmus, Zerrusen, Boyd, and the John Doe Defendants from making, having made, using, importing, or selling CD-Discs under 35 U.S.C. § 283, and/or from continuing to breach the Second Workout Agreement and the 2006 Payment Agreement;

P. directing OEM, Brilliance, Cadmus, Zerrusen, Boyd, and/or the John Doe Defendants to pay Philips' attorneys' fees and costs under 35 U.S.C. § 285 and/or the Second Workout Agreement and the 2006 Payment Agreement;

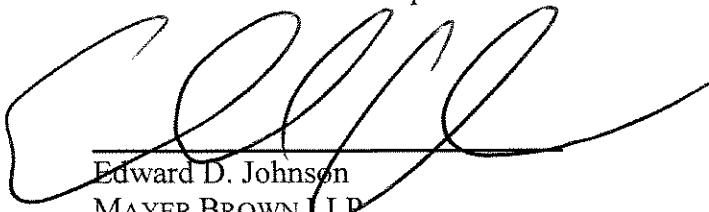
Q. directing OEM, Brilliance, Cadmus, Zerrusen, Boyd, and the John Doe Defendants to pay prejudgment and post-judgment interest;

R. providing such other and further relief as this Court deems just and appropriate.

Jury Trial

Philips demands a jury trial on all claims set forth in this Complaint.

Date: June 10, 2008



Edward D. Johnson
 MAYER BROWN LLP
 Two Palo Alto Square, Suite 300
 3000 El Camino Real
 Palo Alto, California 94306-2112
 Tel: (650) 331-2000
 Fax: (650) 331-2060

Christopher J. Houpt
 MAYER BROWN LLP
 1675 Broadway
 New York, New York 10019
 Tel: (212) 506-2380
 Fax: (212) 849-5830

Vince P. Kovalick
 John F. Hornick
 Samuel C. Bass
 FINNEGAN, HENDERSON, FARABOW,
 GARRETT & DUNNER, L.L.P.
 901 New York Avenue, N.W.
 Washington, D.C. 20001-4413
 Tel: (202) 408-4000
 Fax: (202) 408-4400

*Attorneys for Plaintiffs
 Koninklijke Philips Electronics N.V. and
 U.S. Philips Corporation*

EXHIBIT A

United States Patent [19]

Kramer

[11] Patent Number: 5,068,846

[45] Date of Patent: Nov. 26, 1991

[54] REFLECTIVE, OPTICAL RECORD CARRIER

[75] Inventor: Pieter Kramer, Eindhoven, Netherlands

[73] Assignee: U.S. Philips Corporation, New York, N.Y.

[21] Appl. No.: 858,550

[22] Filed: Apr. 23, 1988

Related U.S. Application Data

[63] Continuation of Ser. No. 146,554, May 5, 1980, abandoned, which is a continuation of Ser. No. 949,919, Oct. 10, 1978, abandoned, which is a continuation of Ser. No. 772,914, Feb. 28, 1977, abandoned, which is a continuation of Ser. No. 344,867, Mar. 26, 1973, abandoned.

[30] Foreign Application Priority Data

Sep. 2, 1972 [NL] Netherlands 7211999

[51] Int. Cl. 5 G11B 7/24; H04N 5/85

[52] U.S. Cl. 369/275.1; 358/342; 369/275.5; 369/109

[58] Field of Search 358/342; 365/113, 120; 369/275, 109, 93-94, 125, 107, 111, 275.1, 275.4, 275.5, 275

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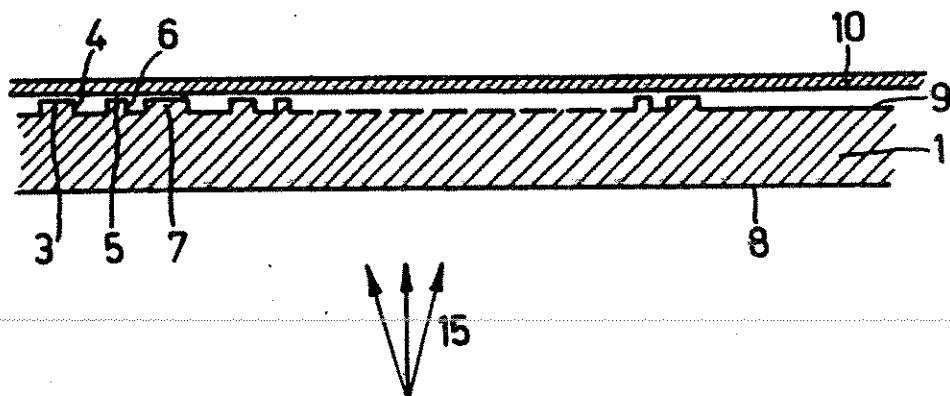
Rice et al., An Experimental Television Recording and Playback System Using Photographic Discs, Journal of the SMPTE, vol. 79, No. 11, 11/70, pp. 997-1002.

Primary Examiner—Robert Weinhardt
 Attorney, Agent, or Firm—Algy Tamoshunas; Leroy Eason

[57] ABSTRACT

A record carrier for information, for example video and/or audio information, in the form of a disk-shaped carrier substrate provided with an optical structure in accordance with the information is described. By making the optical structure radiation-reflecting and the substrate radiation-transmitting, whilst the surface of the substrate more remote from the optical structure forms both the entrance face and the exit face for the read radiation, and by coating a surface of the optical structure more remote from the substrate with an additional layer, a simple record carrier is obtained which is well protected against dust particles and damage.

7 Claims, 3 Drawing Sheets



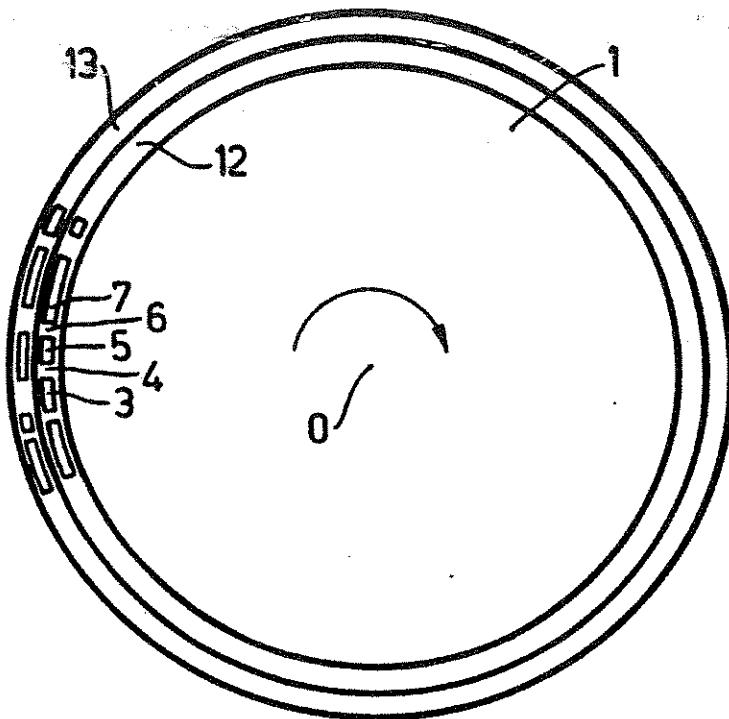


Fig.1

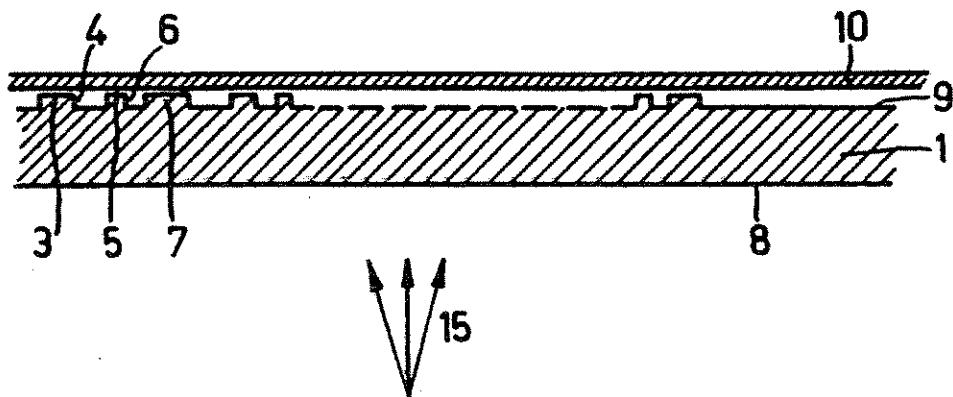


Fig.2

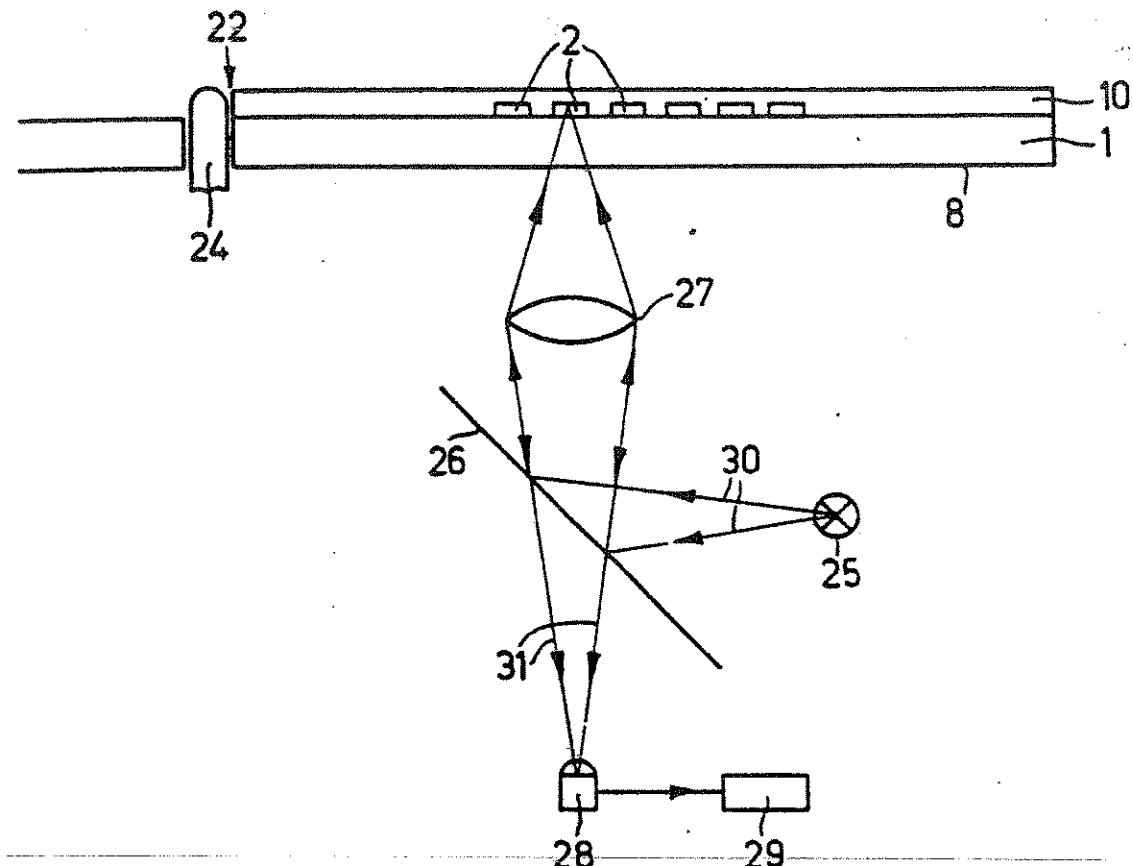


Fig.3

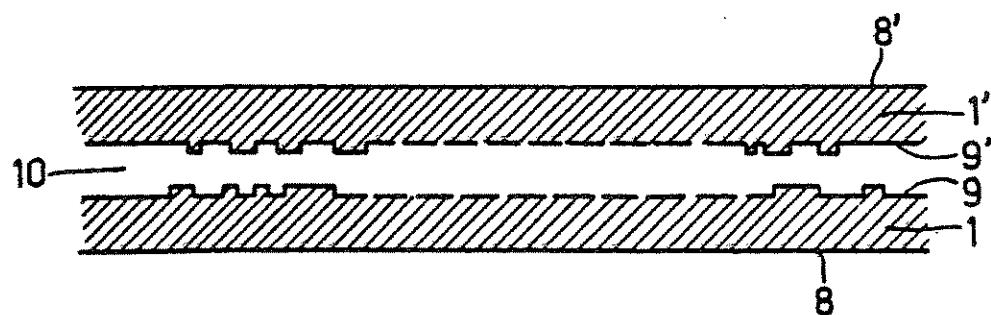


Fig.4

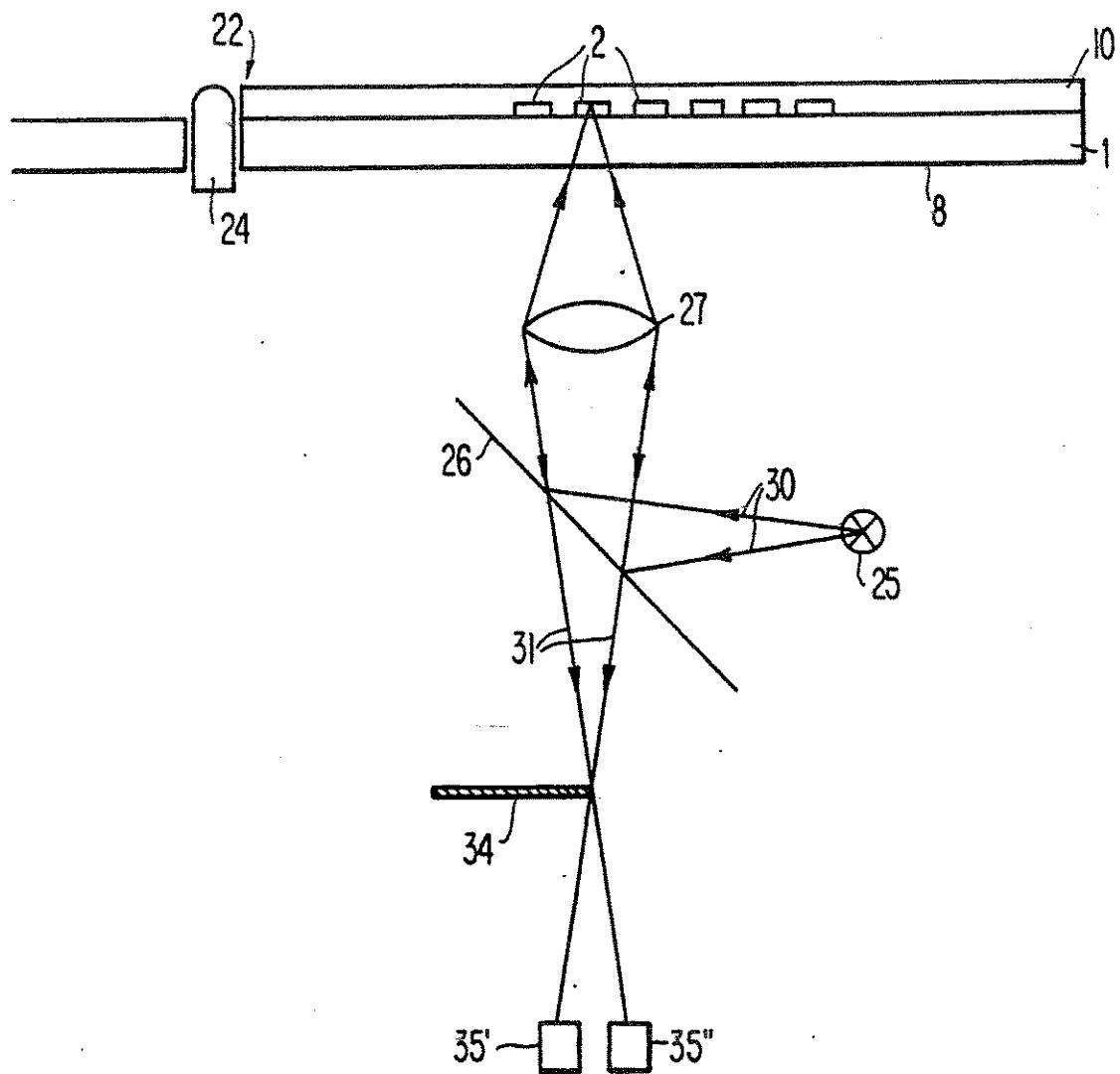


FIG. 5

REFLECTIVE, OPTICAL RECORD CARRIER

This application is a continuation of Ser. No. 146,554, filed May 5, 1980, which is a continuation of Ser. No. 949,919, filed Oct. 10, 1978, which is a continuation of Ser. No. 772,914, filed Feb. 28, 1977, which is a continuation of Ser. No. 344,867, filed Mar. 26, 1973, all such prior applications having been abandoned. This application is, further, a continuation-in-part of Ser. No. 229,285, filed Feb. 25, 1972, abandoned, which was continued as application Ser. No. 396,399, filed Sept. 12, 1973, abandoned, which was continued as application Ser. No. 618,215, filed Sept. 30, 1975, and issued as U.S. Pat. No. 4,041,530, dated Aug. 9, 1977.

The invention relates to a record carrier for information, for example video and/or audio information, in the form of a disk-shaped carrier substrate on which an optical structure is provided in accordance with the information, which record carrier is intended to be read by means of optical radiation. The invention also relates to an apparatus for reading the record carrier.

Such a record carrier and read apparatus are known and are described, *inter alia*, in "Journal of the S.M.P.T.E." 79 (November 1970) pages 997-1002. In the known record carrier the information is stored in analog form, for example in the form of areas which have different absorption coefficients and are arranged in tracks. This registration carrier is read in the transmission mode in which a read beam enters the carrier on the side of the optical structure and emerges from it on the opposite side. In its passage through the carrier the beam is modulated by the structure in accordance with the information stored in it. The modulated beam is converted into an electric signal by a radiation-sensitive detector.

Because a large amount of information is stored on the record carrier, the details of the optical structure are very small, if, for example, a video program having a duration of 45 minutes is stored on a disk record carrier having an outer diameter of 30 cm, the size of the details will be of the order of 1 μm . Reading such a fine structure is highly susceptible to dust particles, fluff and the like. If these small objects lie on the optical structure, they may cover a large number of adjacent tracks and details in these tracks, preventing the latter from being read. In addition there is a very real possibility that, for example when the record carrier is handled or placed in the read apparatus, scratches and the like are made in the optical structure. Because the record carrier is intended to be played back in non-ideal circumstances, for example in the living room, provisions must be made to render the optical structure more or less unsusceptible to dust and damage.

The aforementioned paper proposes to coat the optical structure with an additional transparent layer. This is done to ensure that dust particles screen off only part of the read beam focussed on the optical structure of the record carrier. However, this requires the protective layer to have a minimum thickness of the order of many times the depth of focus of the lens used, for example a thickness of 100 μm . Moreover, the protective layer must intimately engage the optical structure, preventing the occurrence of local air bubbles between the optical structure and the protective layer.

In the known apparatus it is attempted to maintain the focus of the objective which focusses the read beam on the optical structure by causing the objective to "faint"

on an air cushion on the record carrier. This presupposes, however, that the thickness of the protective layer is constant throughout the entire surface, or at least that it contains no variations in excess of the depth of focus of the objective, which is of the order of 1 μm . Consequently the protective layer has to satisfy exacting requirements.

It is an object of the present invention to provide a record carrier in which the optical structure is protected against dust particles and damage without the use of a protective layer which is required to satisfy stringent requirements. For this purpose the record carrier according to the invention is characterized in that the optical structure is a radiation-reflecting structure and the carrier substrate is radiation-transmitting, the surface of the carrier substrate more remote from the optical structure forming both the entrance face and the exit face for the read radiation. In this record carrier the carrier substrate itself ensures that dust particles are sufficiently spaced away from the optical structure.

According to a further feature of a record carrier according to the invention, the surface of the optical structure more remote from the carrier substrate is provided with an additional layer. Because the optical structure is completely embedded between two layers, it cannot readily be damaged.

The optical structure is read in the reflection mode, which means that the read beam is modulated by reflection at the optical structure. The additional layer is not traversed by the read beam and is only required to protect the optical structure from damage. Hence this layer need not satisfy exacting requirements. It need not be radiation-transmissive and need not have a constant thickness throughout its surface. In addition, it need not accurately engage the optical structure. It may, for example, be a plate which is secured to the carrier substrate along the edge.

The reflecting optical structure may be in the form of co-planar radiation-reflecting regions and intermediate areas, the areas having a coefficient of reflection different from that of the regions. Preferably, however, the optical structure consists of regions and intermediate areas having equally high reflection coefficients but situated at different levels.

The record carrier according to the invention differs from the known record carrier not only in construction but also in the manner in which during reading the read beam is maintained in focus on the optical structure. The flatness of the carrier substrate also which is required when employing the known method (an objective supported by an air cushion) can only be achieved by painstaking polishing. This greatly increases the cost of the disk. Optical determination according to the invention of the deviation between the plane of the optical structure and the plane in which the beam of radiation is focussed enables the range of permissible thickness variations over the carrier substrate to be extended to, for example, 300 μm .

Embodiments of the invention will now be described, by way of example, with reference to the accompanying diagrammatic drawings, in which:

FIG. 1 is a plan view of a record carrier not coated with an additional layer,

FIG. 2 is a cross-sectional view of an embodiment of a record carrier according to the invention,

FIG. 3 is a known apparatus for reading the record carrier,

FIG. 4 is a cross-sectional view of a second embodiment of a record carrier according to the invention, and

FIG. 5 shows an arrangement for detecting focusing errors during reading of information from the record carrier.

FIG. 1 is a plan view of a circular record carrier. The carrier may contain a spiral structure comprising a plurality of quasi-concentric tracks. As an alternative, the tracks may be concentric, as is shown in FIG. 1. Only parts of two adjacent tracks denoted by 12 and 13 are shown. Each of the tracks contains, for example, a crenellated structure comprised of depressions which are spaced apart by intermediate areas or lands in the track direction, the dimensions of which are shown greatly exaggerated in FIG. 2, which is a tangential sectional view of a record carrier according to the invention. The spacings between, and the length of, the upper surfaces 3 and 5, 5 and 7, and so on of the merlons are different. Their heights 4, 6, and so on are equal to one another and, preferably, to about one quarter wavelength of the radiation used for reading. Instead of perpendicular leading and trailing edges the optical structure may alternatively have smooth transitions between the upper and lower surfaces.

The carrier substrate 1 transmits the radiation used for reading. The optical structure is provided on the upper surface of the disk, whilst the lower surface acts both as the entrance surface for the unmodulated beam and as the exit surface for the modulated beam. The faces of the optical structure have been made highly reflecting, for example in that after the structure has been pressed in the substrate a metal layer is deposited on it from vapour. The thickness of this metal layer is not of importance. A protective layer 10 is provided on top of the optical structure. The only purpose of this layer is to protect the optical structure of the record carrier against damage. Hence any layer which provides protection against rough handling of the carrier may be used. As FIG. 2 shows, the layer may be a thin disk which is spaced from the optical structure and is secured to the substrate along the edge only. In addition, a sheet of paper or a foil of a synthetic material provided with an adhesive on one surface may be stuck onto the optical structure. As an alternative, as is shown in FIG. 4, the layer, for example a sprayed layer of lacquer, may be provided on and between the merlons, in which case the thickness of the layer must be greater than the height of the merlons. Because the optical structure lies between the substrate 1 and the layer 10 it is fairly capable of withstanding rough handling.

A read beam (15) is modulated in phase by the crenellated structure shown in FIG. 2. As an alternative, the upper surface 9 of the substrate may be provided with a structure of radiation-reflecting regions and radiation-absorbing intermediate areas, causing the read beam to be modulated in amplitude.

When the disk record carrier shown in FIG. 1 is to be read, it is rotated at a speed of, for example, 1500 revolutions per minute by means of a driving spindle 24, as is shown in FIG. 3. In this Figure the record carrier is shown in radial section. A read beam 30 emitted by a source of radiation 25 is reflected to the record carrier by a half-silvered mirror 26. The beam passes through the carrier substrate 1 to be reflected at the optical structure (shown as tracks 2) on the upper surface of the disk. An objective 27 forms an image of the source on the optical structure, the size of this image being of the order of the smallest detail of the structure.

During rotation of the record carrier the read beam is modulated in time in accordance with the sequence of, for example, the merlons in a track. The modulated read beam 31 passes through the half-silvered mirror 26 to be intercepted by a radiation-sensitive detector 28. At the output of the detector an electric signal is produced which corresponds to the information stored in the record carrier. The detector 28 may be connected to known electronic means for converting the output signal of the detector into picture and sound.

The advantages of reading in reflection will be clear from FIG. 3. All the optical elements and the electronic processing devices are disposed on one side of the record carrier, permitting the carrier to be readily placed in the read apparatus. Moreover the elements may be incorporated so as to be well protected. Furthermore the number of optical elements may be reduced, because some elements are used twice. The reduced number of elements results in a reduced likelihood of relative oscillations.

Also, the record carrier may be read in a non-dustfree room, for example a living room, for dust particles deposited on the layer 10 have no effect, because the read beam does not pass through this layer. A dust particle on the lower surface 8 of the substrate may reduce the intensity of the radiation incident on the optical structure. However, a reduction in intensity is not highly inconvenient, because the information is recorded in digital form. A dust particle cannot entirely intercept the beam, because the beam has a comparatively large diameter in the plane of the dust particle. This is due to the fact that the substrate by nature has a certain thickness, *inter alia* because of the desired rigidity.

If the record carrier is to be suitable for manufacture by mass production methods, the flatness of the substrate should not have to satisfy exacting requirements. However, because the depth of focus of the objective 27 is of the order of 1 μm , variations in the thickness of the substrate may cause parts of the optical structure to become located outside the focussed light spot at the sites of these variations. These thickness variations, which cannot be compensated for by an objective floating on an aircushion, may cause the detector to receive not only radiation from the track part to be read, but also radiation from the surroundings of this part. As a result, the modulation depth of the output signal from the detector is reduced, while moreover, because not one track only but adjacent tracks are also illuminated, crosstalk may occur.

According to the invention the record carrier described may be used to advantage if during reading an optical focussing detection method is employed. For this purpose read apparatuses provided with focussing detection systems described in the patents identified below may be used. The use of the apparatuses for reading the record carrier according to the invention described in these patents means that the possibilities of the apparatuses described therein are particularly efficiently utilized.

One such arrangement is illustrated in FIG. 5 wherein a screen 34 is disposed in the path of the reflected beam 31 at a position such that the detectors 35' and 35'' receive equal amounts of radiation when the beam is properly focused on the reflective optical structure. If, on the other hand, the plane of the optical structure shifts from the desired position, the screen will intercept the rays which travel to one of the detectors

so that said one detector will receive less radiation than the other. The amount and direction that the plane of the reflective optical structure deviates from the desired position can thus be determined by comparison of the output signals from the detectors 35' and 35".

An optical determination of the deviation between the plane of the optical structure and the plane in which the read beam is focussed may be effected by imaging a grating constituted by adjacent tracks of the optical structure on two physical gratings spaced from the record carrier by different distances. The difference between the output signals of the detectors disposed behind the gratings indicates the magnitude and the direction of any deviation. A read apparatus including such focussing detection is described in U.S. Pat. No. 3,833,769.

A second possibility is offered by the apparatus described in U.S. Pat. No. 4,010,317 in which two detectors are arranged side by side, viewed in the direction of length of the track. The detectors intercept two different parts of the modulated beam.

As an alternative, the deviation between the plane of the optical structure and the plane in which the read beam is focussed may be detected without using the details in the optical structure, in contradistinction to the two aforementioned apparatuses. In such a method the optical structure is used only as a reflecting face, as is described in U.S. Pat. No. 3,876,841 and U.S. Pat. No. 3,876,842. By means of, inter alia, this face an image of an object is formed, the location of this image being determined by the location of the plane of the reflecting optical structure.

FIG. 4 shows a second embodiment of a record carrier according to the invention. Two substrates 1 and 1' which each have an optical structure on one surface 9 and 9' respectively are combined with an intermediate layer 10 to form an integral unit. Such a record carrier may be manufactured by methods known from the technology of disk-shaped sound records. The structures on the surfaces 9 and 9' are read by means of beams in opposite directions. In this embodiment the layer 10 is only required to separate the optical structures and need not protect them against external influences.

In the record carrier shown in FIG. 4 the two halves of one program may be stored in the two optical structures.

The record carrier shown in FIG. 4 is eminently suitable to realize a further invention idea. According to this idea information about the same colored pictures is stored in different color codes in two optical structures of one record carrier. In one of these optical structures the program may be recorded, for example, according to the PAL-standard and in the other optical structure according to the Secam-standard or the NTSC-standard. The advantage is that the same information on one record carrier may be used in a large geographic area in spite of the fact that different apparatuses are used for rendering pictures and sound visible and audible respectively.

What is claimed is:

1. A record carrier containing information which is readable by a beam of radiation, said record carrier comprising a disc-shaped, radiation-transmitting substrate having a pair of planar surfaces on opposite sides thereof, a non-transmissive, radiation reflecting optical structure on one of said planar surfaces of said substrate, said optical structure comprising a plurality of adjacent, circular tracks extending about the center of said sub-

strate and defining turns of a spiral or concentric circles spaced from each other in the radial direction, each circular track having a plurality of depressions in said one surface of said substrate, said depressions being spaced apart in the track direction by intermediate areas, and a reflective layer extending over said intermediate areas and said depressions so that upon illumination by a convergent beam of radiation which is projected on and enters through the other of said planar surfaces and which passes through said substrate and is focussed on said optical structure to a spot of a size of the order of the smallest detail of said optical structure, the radiation is modulated by said depressions and intermediate areas in accordance with the sequence thereof and the modulated radiation is reflected by said reflective layer towards and exists through said other planar surface, said substrate defining a substantially rigid support for said optical structure and having a thickness such that in the plane of said other surface, which forms the entrance and exit faces for the radiation, the diameter of the beam is sufficiently larger than the diameter of said spot so that dust particles, scratches and the like on said other surface, do not interfere with readout of information by the convergent beam focussed to said spot on said optical structure, and an additional layer secured to the side of said substrate remote from said other surface, said optical structure being disposed between said substrate and said additional layer so that it is protected from damage during handling.

2. The record carrier according to claim 1 wherein said depressions are pressed into said one surface of said substrate and said reflective layer is metallic and is deposited on said one surface.

3. The record carrier according to claim 1 or 2 wherein the thickness of said additional layer is substantially smaller than the thickness of said substrate.

4. The record carrier according to claim 2 wherein said reflective, metallic layer is deposited on said one surface from vapour.

5. The record carrier according to claim 4 wherein said additional layer is a layer of lacquer sprayed on said optical structure.

6. An apparatus for reading information stored on a record carrier having a disk-shaped radiation transmitting substrate with a pair of parallel, planar surfaces on opposite sides thereof and a non-transmissive, radiation reflecting optical structure disposed on one of said planar surfaces, said optical structure comprising a plurality of adjacent, circular tracks extending about the center of the substrate and defining turns of a spiral or concentric circles spaced from each other in the radial direction, each circular track having a plurality of depressions spaced apart by intermediate areas in the track direction, said apparatus comprising means for supporting the record carrier for rotation about the center of the substrate in a plane parallel to the plane of said one surface, means positioned on the side of said substrate remote from said optical structure for producing a beam of radiation which is projected onto the other surface of said substrate so that the radiation passes through said substrate and is incident on said reflective optical structure, an objective system for focusing said beam to a spot on said optical structure so that the radiation is modulated by said optical structure in accordance with information stored thereby and the modulated radiation is reflected by said optical structure back through said other surface and passes through said objective system, said substrate having a thickness such that in the plane

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5,068,846

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of said other surface the diameter of the beam is sufficiently larger than the diameter of said spot so that dust particles, scratches and the like on said other surface do not interfere with readout of information by the beam focussed to said spot on said optical structure, radiation-sensitive means for converting the modulated radiation into an electrical signal, said radiation sensitive means being disposed in the path of the modulated radiation reflected by the optical structure, and means for deriving from the radiation a signal indicative of a deviation of the plane of the optical structure from the plane at which the radiation is focused by said objective system for correcting the focusing.

7. A record carrier containing information which is readable by a beam of radiation, said record carrier comprising a pair of disc-shaped, radiation-transmitting substrates each having a pair of planar surfaces on opposite sides thereof, a non-transmissive, radiation reflecting optical structure on one of said planar surfaces of each substrate, said optical structures each comprising a plurality of adjacent, circular tracks extending about the center of said substrate and defining turns of spiral or concentric circles spaced from each other in the radial direction, each circular track having a plurality of depressions which are spaced apart in the track direc- 25

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tion by intermediate areas, said substrates being disposed in a superposed relationship with said optical structures being adjacent each other so that upon illumination of said one optical structure by a beam of radiation which is projected on and enters through the other of said planar surfaces of the associated substrate and which passes through said associated substrate and is focussed on said one optical structure to a spot of a size of the order of the smallest detail of the optical structure, the radiation is modulated by said depressions and intermediate areas in accordance with the sequence thereof and the modulated radiation is reflected by said one optical structure towards and exits through said other planar surface of said associated substrate, each substrate defining a substantially rigid support for the respective optical structure and having a thickness such that in the plane of said other surface, which forms the entrance and exit faces for the radiation, the diameter of the beam is sufficiently larger than the diameter of said spot so that dust particles, scratches and the like on said other surface, do not interfere with readout of information by the convergent beam focussed to said spot on said optical structure.

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EXHIBIT B

CD DISC PATENT LICENSE AGREEMENT

This Agreement is entered into this 1st day of July, 2002 by and between

KONINKLIJKE PHILIPS ELECTRONICS N.V., having its registered office in Eindhoven, The Netherlands, (hereinafter referred to as "Philips")

and

OPTICAL EXPERTS MANUFACTURING, INC., having its registered office in 8500 South Tryon Street, Charlotte, NC 28273 (hereinafter referred to as "Licensee").

WHEREAS, the Philips' group of companies has for many years been engaged in research and development of systems, in which signals encoded in digital form and stored on a disc are read and reproduced by means of devices using an optical read-out beam, and has acquired valuable know-how and expertise therein;

WHEREAS, one of the achievements of such research and development efforts has been a revolutionary high-fidelity sound storage and reproduction system, of which the specifications have been further defined in a joint research and development co-operation with Sony Corporation ("Sony") and which has been presented under the name "Compact Disc Digital Audio System" (CD-Audio System);

WHEREAS, on the basis of the CD-Audio System Philips and Sony have developed a further system, which has been presented under the name "Compact Disc Data System" (CD-ROM System);

WHEREAS, Philips and Sony have developed an additional multi-session CD system, which has been presented under the name "Enhanced Music Compact Disc System" ("Enhanced Music CD System" or "CD Extra System" (the CD-Audio System, the CD-ROM System and the CD Extra System are collectively referred to as "the CD Systems");

WHEREAS, Philips and Sony each own certain patents relating to the CD Systems;

WHEREAS, Philips has been authorized by Sony to grant licenses under certain patents relating to the CD Systems, which are owned or controlled by Sony and its Associated Companies (as hereinafter defined), as well as under such patents relating to the CD Systems as are jointly owned by Philips and Sony;

WHEREAS, Philips and Sony have each retained their rights to license their respective patents separately and to give non-assertion undertakings with regard to jointly owned patents, whether within or outside the standard specifications of the CD Systems, so that interested manufacturers may opt to take out separate licenses under the relevant patents of each of Philips and Sony, instead of a combined license;

WHEREAS, Licensee has requested from Philips a license under the relevant patents of Philips and Sony relating to CD-Discs (as hereinafter defined) and wishes such CD-Discs to be compatible with devices capable of playing discs, conforming to the Standard Specifications for any of the relevant CD Systems;

WHEREAS, Philips is willing to grant Licensee a license under the relevant patents and to make available certain basic information relating to the CD Systems, on the conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual obligations and covenants hereinafter set forth, the parties hereto have agreed as follows:

1. Definitions

The following terms used in this Agreement shall have the meanings set out below:

- 1.1 "Disc" shall mean a non-recordable reflective disc-shaped information carrier comprising any kind of information including, but not limited to, audio, video, text and/or data-related information, which is irreversibly stored in a layer during and as an integral part of the manufacturing process of the disc in a form which is optically readable by playback devices using a laser-beam.
- 1.2 "CD-Audio Disc" shall mean a Disc comprising audio information encoded in digital form, which is optically readable by a CD-Audio Player (as hereinafter defined) and which conforms to the CD-Audio Standard Specifications (as hereinafter defined). A CD-Audio Disc may, in addition to audio information, comprise CD Text information.
- 1.3 "CD-Audio Maxi-Single" shall mean a CD-Audio Disc which, in addition to conforming to the CD-Audio Standard Specifications, conforms to the CD-Audio Maxi-Single Standard Specifications.
- 1.4 "CD-ROM Disc" shall mean a Disc containing data, arranged in sectors as defined in the CD-ROM Standard Specifications (as hereinafter defined) in the chapter Digital Data Structure, Parts I to V, under the names: General data specification, Sync., Header, User data and Auxiliary data respectively, and protected against errors in accordance with the error correction system as defined in the CD-ROM Standard Specifications in the chapter Error Correction System under the name Cross Interleaved Reed-Solomon Code - "CIRC".
- 1.5 "CD-ROM Disc mode 1" shall mean a CD-ROM Disc with an additional error correction system for computer or other data as defined in the CD-ROM Standard Specifications in the chapter Digital Data Structure, Part VII, under the name Error Detection and Error Correction specification (a third layer error correction).
- 1.6 "CD-ROM Disc mode 2" shall mean a CD-ROM Disc containing data protected against errors solely by the error correction system as defined in the CD-ROM Standard

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UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

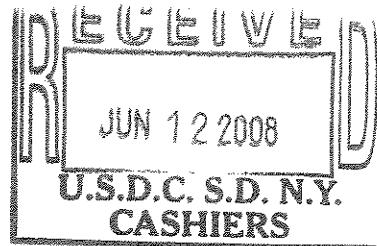
KONINKLIJKE PHILIPS ELECTRONICS
N.V. and U.S. PHILIPS CORPORATION,

Plaintiffs,

v.

OPTICAL EXPERTS
MANUFACTURING, INC.; BRILLIANCE
AUDIO, INC.; CADMUS
COMMUNICATIONS CORPORATION;
RAYMOND BERNARD ZERRUSEN, an
individual; CLIFFORD STEVEN BOYD,
an individual; and John Does No. 1 through
100,

Defendants.



Civil Action No. 08-cv-4071 (KMK)

FIRST AMENDED COMPLAINT

Plaintiffs Koninklijke Philips Electronics N.V. and U.S. Philips Corporation allege as follows based upon knowledge as to their own acts, and upon information and belief as to all other allegations:

1. This is an action for breach of contract under the laws of the State of New York and, in the alternative, patent infringement under 35 U.S.C. 271 *et seq.*

The Parties

2. Plaintiff Koninklijke Philips Electronics N.V. is a corporation organized under the laws of The Netherlands with its principal place of business in Amsterdam, the Netherlands. Plaintiff U.S. Philips Corporation is a corporation organized under the laws of Delaware with its principal place of business at 3000 Minuteman Road, M/S 109, Andover, MA 01810, and an office at 345 Scarborough Rd., Briarcliff Manor, New York. Plaintiffs Koninklijke Philips Electronics N.V. and U.S. Philips Corporation are collectively referred to as "Philips."

3. Defendant Optical Experts Manufacturing, Inc. ("OEM") is a corporation organized under the laws of North Carolina with a principal place of business at 8500 South Tryon Street, Charlotte, NC.

4. Defendant Brilliance Audio, Inc. ("Brilliance") is a corporation with a place of business at 1704 Eaton Drive, Grand Haven, MI 49417.

5. Defendant Cadmus Communications Corporation ("Cadmus") is a corporation with a principal place of business at 1700 Diagonal Rd. Suite 320, Alexandria, Virginia 22314-2840.

6. Defendant Raymond Bernard Zerrusen ("Zerrusen") is an individual residing at 13907 Grand Palisades Pkwy, Charlotte, NC 28278. Zerrusen is the Owner and President of OEM.

7. Defendant Clifford Steven Boyd ("Boyd") is an individual residing at 2527 Winterbrooke Dr., Matthews, NC 28105. Boyd is the Chief Operating Officer and Executive Vice President of OEM.

8. Defendants John Doe No. 1 through John Doe No. 100 inclusive are or may be OEM-related entities or OEM customers, the identities of which are unknown at this time.

Jurisdiction and Venue

9. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1332, 1338(a), and 1367(a), and 35 U.S.C. §§ 271 and 281.

10. The amount in controversy exceeds the sum or value of \$75,000, exclusive of interest and costs.

11. Venue in this Court is proper under 28 U.S.C. §§ 1391(b) and (c) and 1400(b).

12. This Court has personal jurisdiction over OEM, Brilliance, Cadmus, Zerrusen, and Boyd under the New York Long Arm Statute, N.Y. C.P.L.R. 301, 302, 317 (McKinney 2007) and Fed. R. Civ. P. 4(e)(1).

13. OEM has committed acts of patent infringement in this judicial district.
14. Brilliance has committed acts of patent infringement in this judicial district.
15. Cadmus has committed acts of patent infringement in this judicial district.
16. Zerrusen is actively involved in the control and management of OEM.
17. Zerrusen has committed acts of patent infringement in this judicial district, including but not limited to directing and controlling patent infringement by OEM.
18. Boyd is actively involved in the control and management of OEM.
19. Boyd has committed acts of patent infringement in this judicial district, including but not limited to directing and controlling patent infringement by OEM.
20. OEM has irrevocably waived any objections to the jurisdiction, process, and venue of this Court, and to the effectiveness, execution, and enforcement of any order or judgment (including a default judgment) with respect to the Agreement and Side Letter identified in ¶ 30 of this Complaint.
21. OEM, Brilliance, Cadmus, Zerrusen, and Boyd are subject to personal jurisdiction in this district because they purposefully engaged in activities that gave rise to this claim for patent infringement, which were directed at residents of New York and this judicial district.
22. OEM, Brilliance, Cadmus, Zerrusen, and Boyd voluntarily placed unlicensed CD-Discs (as defined in ¶ 31) into the stream of U.S. commerce, conscious that New York and this judicial district were the likely destination of a substantial quantity of those unlicensed CD-Discs.

Facts Related to Philips

23. Philips and its related companies have engaged for many years in research and development ("R&D") of systems in which signals encoded in digital form and stored on a disc are read and reproduced by means of devices using an optical read-out beam.

24. One of the achievements of such R&D efforts was a revolutionary high-fidelity sound storage and reproduction system, known as the Compact Disc Digital Audio System (“CD-Audio System”).

25. Philips and Sony Corporation (“Sony”) developed the Compact Disc Data System (“CD-ROM System”) from the CD-Audio System.

26. Philips and Sony also developed a multi-session CD system, known as the Enhanced Music Compact Disc System (“Enhanced Music CD System” or “CD Extra System”).

27. The CD-Audio System, CD-ROM System, and CD Extra System are referred to collectively in this Complaint as the “CD Systems”.

28. U.S. Philips Corporation is the owner by assignment of all right, title, and interest in U.S. Patent No. 5,068,846, entitled “Reflective, Optical Record Carrier,” relating to the CD Systems (“the ‘846 patent”). The ‘846 patent was duly and legally issued by the U.S. Patent and Trademark Office on November 26, 1991, after full and fair examination, and is valid and subsisting in the United States. A true copy of the ‘846 patent is attached as **Exhibit A**.

29. The CD Systems are defined by “Standard Specifications”, namely, the CD-Audio Standard Specifications, CD-Audio Maxi-Single Standard Specifications, CD-ROM Standard Specifications, CD-ROM-XA Specifications, and the Enhanced Music CD Standard Specifications.

Facts Related to OEM

30. Effective July 1, 2002, Philips and OEM entered into a “CD Disc Patent License Agreement” whereby Philips granted OEM worldwide rights under certain patents related to CD Systems, including for the territory of the United States, its territories, and possessions (the

“Agreement”) (**Exhibit B**). Effective July 1, 2002, Philips and OEM entered into a “Side Letter” that constitutes a legally binding and integral part of the Agreement (**Exhibit C**).

31. The Agreement identifies the Standard Specifications for CD System discs, specifically, “CD-Audio Discs”, “CD-Audio Maxi-Singles”, “CD-ROM Discs”, “CD-ROM Disc mode 1”, “CD-ROM Disc mode 2”, “CD-ROM XA Disc sub-mode 1”, “CD-ROM XA Disc sub-mode 2”, “CD Extra Discs”, “CD Extra Discs sub-mode 1”, and “CD Extra Discs sub-mode 2”. Such CD System discs are referred to collectively in this Complaint as “CD-Discs”.

32. Paragraph 1.23 of the Agreement defines “Licensed Patents” as “any one or more of the essential patents for the manufacture and/or sale of the various types of CD-Discs”, breaks out such patents into Categories I through III, and incorporates the specific patents listed in Annexes A1 through A8. Under ¶ 1.23 of the Agreement, Licensed Patents identified in Annex A1 cover all CD-Discs, in Categories I through III.

33. The ‘846 patent was listed in Annex A1 when OEM signed the Agreement and is currently listed in Annex A1, and therefore is a Licensed Patent applicable to all CD-Discs manufactured and/or sold by OEM under the Agreement.

34. Under ¶ 1.23 of the Agreement, Philips and OEM agreed that Philips would commission an independent expert to review the patents listed in Annexes A1 through A8 to confirm that each patent is “essential” to the manufacture and sale of CD-Discs made according to the Standard Specifications. Philips did so.

35. Under ¶ 1.23 of the Agreement, the term “essential” as used in relation to Licensed Patents means “patents, the use of which is necessary (either directly or as a practical matter) for compliance with the Standard Specifications defining the relevant CD System(s).”

36. The independent expert commissioned by Philips determined that the '846 patent is an essential patent and is properly listed in Annex A1 of the Agreement.

37. Paragraph 1.22 of the Agreement defines "Licensed Product(s)" by eleven "Options", Option A through K, "as selected by Licensee, manufactured and/or sold in accordance with the provisions hereof, which are duly reported and on which the royalties due hereunder are paid in accordance with the provisions of this Agreement." Each Option corresponds to a different type of CD-Disc defined in ¶¶ 1.2 through 1.11 of the Agreement, made in compliance with the Standard Specifications for each type of CD-Disc defined in ¶¶ 1.12 through 1.16 of the Agreement. For example, Option A is "CD-Audio Discs and/or CD-Audio Maxi Singles" defined in ¶¶ 1.2 and 1.3, respectively, made in compliance with the ¶¶ 1.12 and 1.13 Standard Specifications, and Option C is "CD-ROM Discs mode 1" defined in ¶ 1.5, made in compliance with the ¶ 1.14 Standard Specifications.

38. OEM selected all Licensed Products, namely, Options A through K.

39. Under ¶ 2.1 of the Agreement, Philips granted to OEM "a non-exclusive, non-transferable license under the Licensed Patents" (listed in the Annexes corresponding to the Options selected by OEM) "to manufacture Licensed Products" corresponding to Options A-K (as selected by OEM), "in accordance with the . . . Standard Specifications" set forth in ¶¶ 1.12 through 1.16 of the Agreement, within the United States and its territories and possessions, "and to sell or otherwise dispose of such Licensed Products so manufactured in all countries of the world."

40. Under ¶ 5.2 of the Agreement, OEM promised to "pay to Philips a royalty for each CD-Disc sold or otherwise disposed of by Licensee, any of Licensee's Associated Companies [as

defined in ¶ 1.24] or an agent of Licensee, in any country where at least one of the Licensed Patents essential to the type(s) of CD-Discs as selected by Licensee . . . exists.”

41. The ‘846 patent exists in the United States, and has existed at all times relevant to this action.

42. With respect to the royalty required by the Agreement, OEM agreed to pay Philips the “Standard Rate” of 3 cents (3¢) per relevant CD-Disc covered by this Complaint, as defined in ¶ 5.2 of the Agreement.

43. With respect to CD-Discs sold on or after July 1, 2002, Philips permitted OEM to pay the “Compliance Rate” of 1.75 cents (1.75¢) per relevant CD-Disc covered by this Complaint, also as defined in ¶ 5.2 of the Agreement, provided that OEM meets the “Compliance Requirements” specified in the Agreement and Side Letter.

44. Paragraph 5.2 of the Agreement further provides that “[i]n the event that Licensee fails to comply at any time with any of its obligations under this Agreement, the Standard Rates, as applicable, shall apply to Licensee’s manufacture and sale of CD-Discs instead of the Compliance Rates, as applicable, with immediate effect from the first day of the reporting period to which the occurrence of non-compliance relates until such moment that Philips confirms in writing to Licensee that Licensee’s non-compliance has been remedied in full.”

45. Paragraphs 5.3 and 5.10 of the Agreement require OEM to submit quarterly “Royalty Reporting Forms” to Philips listing all CD-Discs that it manufactures and sells, and to keep complete and accurate books and records relating to OEM’s manufacture and sale or other disposal of CD-Discs.

46. On December 8, 2003, Philips and OEM entered into a “Second Workout Agreement” relating in part to the Agreement (**Exhibit D**). The Second Workout Agreement reflects the facts

that OEM failed to make certain royalty payments under the Agreement, failed to pay certain arrearages under a February 28, 2002 Workout Agreement, asked Philips to forbear its remedies under the Agreement and to restructure payment for the unpaid royalties due and owing by OEM to Philips, and Philips and OEM so agreed. Under the Second Workout Agreement, OEM agreed to make monthly payments to Philips through December 2008. Such payments are due no later than the 15th day of each month. The Second Workout Agreement provides that if OEM fails to make timely payments under such agreement or the Agreement, or fails to provide timely royalty reports under the Agreement, and fails to cure as provided in the Second Workout Agreement, (1) the entire remaining unpaid balance under the Second Workout Agreement shall immediately become due and payable, (2) Philips shall be entitled to injunctive relief and/or confession of judgment for such unpaid balance, and (3) Philips shall be entitled to an award of its reasonable attorneys' fees and costs for enforcement of the Second Workout Agreement.

47. On December 1, 2006, Philips and OEM entered into a "2006 Payment Agreement" relating in part to the Agreement (**Exhibit E**). The 2006 Payment Agreement reflects the facts that OEM failed to disclose all applicable discs purchased, manufactured, or sold for a certain period and failed to make certain payments, asked Philips to forbear its remedies under the Agreement and to restructure OEM's payments, and Philips and OEM so agreed. Under the 2006 Payment Agreement, OEM agreed to pay interest on unpaid amounts due under such agreement, and OEM agreed to make monthly payments to Philips through December 2009. Such payments are due no later than the 15th day of each month. The 2006 Payment Agreement provides that if OEM fails to make timely payments under such agreement or the Agreement, or fails to provide timely royalty reports under the Agreement, and fails to cure as provided in the 2006 Payment Agreement, (1) the entire remaining unpaid balance under the 2006 Payment

Agreement shall immediately become due and payable, (2) Philips shall be entitled to injunctive relief and/or confession of judgment for such unpaid balance, and (3) Philips shall be entitled to an award of its reasonable attorneys' fees and costs for enforcement of the 2006 Payment Agreement.

Facts Relating to Breach of Contract Claim

48. OEM selected Licensed Product Options A-K. To be Licensed Products, selected CD-Discs must be manufactured and sold in compliance with the corresponding Standard Specifications and the provisions of the Agreement, such sales must be reported to Philips, and royalties for the sale of such CD-Discs must be paid to Philips. For example, a CD-Audio Disc is defined by ¶ 1.2 of the Agreement to "mean a Disc [as defined in ¶ 1.1 of the Agreement] comprising audio information encoded in digital form, which is optically readable by a CD-Audio Player [as defined in ¶ 1.18 of the Agreement] and which conforms to the CD-Audio Standard Specifications [as defined in ¶ 1.12 of the Agreement]." Paragraph 1.12 defines the CD-Audio Standard Specifications to "mean the specifications for the CD-Audio System [as defined in the second "Whereas" clause of the Agreement], including, if applicable, the Subcode/Control and Display System, Channels R . .W, chapter 5.8, the CD-TEXT mode, as made available, modified or extended from time to time."

49. Under ¶ 2.1 of the Agreement, OEM is licensed only to manufacture selected Licensed Products "in accordance with the relevant CD Standard Specifications and to sell or otherwise dispose of such Licensed Products so manufactured in all countries of the world." (Emphasis added.)

50. Because the '846 patent exists in the United States, under ¶ 5.2 of the Agreement, OEM must pay Philips either the Standard Rates or the Compliance Rates "for each CD-Disc sold or otherwise disposed of" by OEM, its associated companies, or its agents in the U.S.

51. Beginning in or about the 3rd Quarter 2002, OEM began paying royalties under the Agreement according to the Compliance Rates, for the manufacture and sale of relevant CD-Discs (1.75 cents (1.75¢) per disc) in the United States.

52. Beginning in or about December 1, 2005, OEM ceased paying royalties for all CD-Discs made and sold in the U.S.

53. After the 4th Quarter of 2005, OEM has continued to make and sell the following CD-Discs in the U.S., without providing royalty reports or paying royalties to Philips:

- a. at least 30 million CD-Discs.

54. The CD-Discs made and sold by OEM after it stopped paying royalties to Philips have been and are available for purchase on the open market in the U.S., and within this district.

55. OEM does not contest that the CD-Discs made and sold in the U.S. by OEM after it stopped paying royalties to Philips comply with the relevant Standard Specifications.

56. OEM has failed to submit quarterly "Royalty Reporting Forms" to Philips listing all CD-Discs that it manufactures and sells, and/or to keep complete and accurate books and records, relating to OEM's manufacture and sale or other disposal of all CD-Discs in the U.S., as required by ¶¶ 5.3 and 5.10 of the Agreement.

57. OEM has failed to make payments due to Philips under the Second Workout Agreement and the 2006 Payment Agreement. The last installments received by Philips from OEM were the payments due October 15, 2007. Under the Second Workout Agreement, OEM owes Philips monthly payments of \$23,253.21 for November 15, 2007 through December 15, 2008. Under

the 2006 Payment Agreement, OEM owes Philips monthly payments of \$49,388.39 for November 15, 2007 through December 15, 2009.

Facts Relating to Patent Infringement Claim

58. The CD-Discs made and sold by OEM, Zerrusen, and Boyd in the U.S. without paying royalties to Philips fall within the claims of the '846 patent.

59. OEM's license to make and sell such CD-Discs in the U.S. is contingent upon OEM's payment of royalties to Philips. As set forth in this Complaint, OEM is in material breach of the Agreement.

60. As set forth in this Complaint, OEM, Zerrusen, and Boyd are making and selling CD-Discs covered by the '846 patent in the U.S. without paying royalties to Philips.

61. Zerrusen personally, actively, and knowingly controlled and directed OEM in making and selling CD-Discs covered by the '846 patent in the U.S. without paying royalties to Philips. Zerrusen knew that his actions would induce OEM to make and sell CD-Discs covered by the '846 patent.

62. Zerrusen intended to avoid personal liability for his acts of patent infringement by acting as OEM in making and selling CD-Discs covered by the '846 patent. Zerrusen is the alter ego of OEM.

63. Boyd personally, actively, and knowingly controlled and directed OEM in making and selling CD-Discs covered by the '846 patent in the U.S. without paying royalties to Philips. Boyd knew that his actions would induce OEM to make and sell CD-Discs covered by the '846 patent.

64. Boyd intended to avoid personal liability for his acts of patent infringement by acting as OEM in making and selling CD-Discs covered by the '846 patent. Boyd is the alter ego of OEM.

65. Because OEM has not paid royalties to Philips and is in material breach of the Agreement, as set forth in this Complaint, the CD-Discs made and sold by OEM since the breach began are not Licensed Products, and are not licensed, under the '846 patent.

66. Brilliance has purchased from OEM unlicensed CD-Discs that are covered by the '846 patent.

67. Brilliance uses, sells, and/or offers to sell CD-Discs in the U.S. purchased from OEM and covered by the '846 patent without a license from Philips and/or without paying royalties to Philips.

68. Cadmus has purchased from OEM unlicensed CD-Discs that are covered by the '846 patent.

69. Cadmus uses, sells, and/or offers to sell CD-Discs in the U.S. purchased from OEM and covered by the '846 patent without a license from Philips and/or without paying royalties to Philips.

70. The John Doe Defendants are making and/or selling CD-Discs covered by the '846 patent in the U.S. without a license from Philips under the Licensed Patents, and/or without paying royalties to Philips.

Count I
Breach of Contract
Asserted Against All Defendants Except Brilliance and Cadmus

71. Plaintiff repeats and realleges each and every allegation set forth in this Complaint.

72. The Agreement is a valid and subsisting agreement under New York law between Philips and OEM. The Agreement is supported by adequate consideration. Neither Philips nor OEM has terminated the Agreement.

73. In ¶ 13.7 of the Agreement, Philips and OEM agreed that New York law controls the construction of the Agreement.

74. OEM has materially breached the Agreement by failing to pay royalties on its manufacture and sale of CD-Discs, as set forth in this Complaint.

75. Zerrusen and Boyd intentionally induced OEM to breach the Agreement.

76. OEM has materially breached the Agreement in other ways, the details of which are unknown at this time.

77. In view of OEM's breach of the Agreement, Philips is entitled to receive royalties for OEM's manufacture and sale in the U.S. of CD-Discs after the date identified in ¶ 52 at the Standard Rates (3 cents (3¢) per disc for CD-ROM Discs).

78. OEM has materially breached the Agreement by failing to provide accurate audit statements to Philips listing all CD-Discs that it manufactures and sells, failing to submit quarterly "Royalty Reporting Forms" to Philips, and/or failing to keep complete and accurate books and records relating to OEM's manufacture and sale or other disposal of CD-Discs in the U.S., in breach of ¶ 5.2, 5.3, 5.5, and/or 5.10 of the Agreement.

79. Under ¶ 5.7 of the Agreement, Philips is entitled to interest on all unpaid royalties owed to Philips by OEM, accruing at the rate of 2% (two percent) per month, or the maximum amount permitted by applicable law, whichever is lower.

80. Under ¶ 13.5 of the Agreement, OEM agreed that neither Philips' failure nor delay in enforcing any provision of the Agreement shall constitute a waiver of such provision or of Philips' right to enforce any provision of the Agreement.

81. The Second Workout Agreement and 2006 Payment Agreement are valid and subsisting agreements between Philips and OEM, and are supported by adequate consideration. Neither Philips nor OEM has terminated such agreements.

82. OEM has materially breached the Second Workout Agreement and 2006 Payment Agreement by failing to make the payments due under such agreements on and after November 15, 2007. Philips is entitled to such payments.

83. In view of OEM's breach of the Agreement, the Second Workout Agreement, and/or the 2006 Payment Agreement, the entire remaining unpaid balances under the Second Workout Agreement and the 2006 Payment Agreement are now immediately due and payable, and Philips is entitled to injunctive relief and/or confession of judgment for such unpaid balances, and an award of its reasonable attorneys' fees and costs for enforcement of such agreements.

84. Philips has suffered monetary and other damages, in an as-yet undetermined amount, as the direct and proximate result of OEM's material breach of the Agreement, Second Workout Agreement, and/or 2006 Payment Agreement.

85. Philips has suffered monetary and other damages, in an as-yet undetermined amount, as the direct and proximate result of the inducement to breach the Agreement by Zerrusen and Boyd.

Count II
Patent Infringement
Asserted Against All Defendants

86. Plaintiff repeats and realleges each and every allegation set forth in this Complaint.

87. In the alternative to Philips' breach of contract claim with respect to the Agreement, OEM, Brilliance, Cadmus, Zerrusen, and Boyd have infringed and are continuing to infringe, literally and/or under the doctrine of equivalents, the '846 patent by practicing one or more claims of the '846 patent in their manufacture, use, offering for sale, sale, and/or importation of products, and/or by inducing or contributing to the infringement of the '846 patent, under 35 U.S.C. § 271.

88. The John Doe Defendants have infringed and are continuing to infringe, literally and/or under the doctrine of equivalents, the '846 patent by practicing one or more claims of the '846 patent in their manufacture, use, offering for sale, sale, and/or importation of products, and/or by inducing or contributing to the infringement of the '846 patent, under 35 U.S.C. § 271.

89. The '846 patent is valid and subsisting and is entitled to a presumption of validity under 35 U.S.C. § 282.

90. U.S. Philips Corporation is the assignee of all rights, title, and interest in and to the '846 patent and possesses all rights of recovery under the '846 patent.

91. A Reexamination Request for the '846 patent was filed in the U.S. Patent and Trademark Office on December 8, 2004. Ex Parte Reexamination Certificate No. US 5,068,846 C1 (the "Reexamination Certificate"), confirming the patentability of claims 1 through 7 of the '846 patent, was issued by the U.S. Patent and Trademark Office on September 19, 2006. A true copy of the Reexamination Certificate is attached as **Exhibit F**.

92. OEM, Zerrusen, and Boyd have had knowledge of the '846 patent at all times relevant to this action.

93. The infringement of the '846 patent by OEM, Zerrusen, and Boyd has been and continues to be willful, and therefore Philips is entitled to treble damages under 35 U.S.C. § 284.

94. Philips has suffered monetary and other damages in an as-yet undetermined amount, and irreparable injury, as the direct and proximate result of the infringement of the '846 patent by OEM, Brilliance, Cadmus, Zerrusen, and Boyd. Philips has no adequate remedy at law. Unless enjoined, OEM, Brilliance, Cadmus, Zerrusen, and Boyd will continue to infringe and to damage Philips irreparably.

Prayer for Relief

Wherefore, Philips requests that this Court enter judgment in its favor on each and every claim for relief set forth above and award it relief, including but not limited to a judgment and order as follows:

- A. holding Defendant Optical Experts Manufacturing, Inc. liable for breach of contract, specifically, the Agreement, the Second Workout Agreement, and/or the 2006 Payment Agreement;
- B. in the alternative with respect to Philips' breach of contract claim relating to the Agreement, holding Defendant Optical Experts Manufacturing, Inc. liable for patent infringement;
- C. holding Brilliance and Cadmus liable for patent infringement;
- D. holding the John Doe Defendants jointly and severally liable for patent infringement;
- E. holding Zerrusen and Boyd personally liable for actively inducing OEM to infringe under 35 U.S.C. § 271(b);
- F. holding that OEM was merely the alter ego of Zerrusen and Boyd, and holding Zerrusen and Boyd personally liable for direct infringement under 35 U.S.C. § 271(a);
- G. directing OEM, Zerrusen, and Boyd to pay to Philips its actual damages for:
 - a. OEM's breach of contract; or

b. in the alternative with respect to Philips' breach of contract claim relating to the Agreement, OEM, Zerrusen, and Boyd's patent infringement, under 35 U.S.C. § 284;

H. directing Brilliance and Cadmus to pay Philips its actual damages for patent infringement under 35 U.S.C. § 284;

I. directing the John Doe Defendants to pay to Philips its actual damages for patent infringement, under 35 U.S.C. § 284;

J. directing OEM, Zerrusen, and Boyd to pay unpaid royalties at the Standard Rates;

K. directing OEM to pay the entire remaining unpaid balances under the Second Workout Agreement and the 2006 Payment Agreement, and directing OEM to confess judgment for such amounts;

L. directing OEM, Brilliance, Cadmus, Zerrusen, Boyd, and the John Doe Defendants to pay Philips' other damages, including but not limited to direct, consequential, indirect, compensatory, and punitive damages;

M. directing OEM, Zerrusen, and Boyd to pay interest on all unpaid royalties;

N. holding that OEM's, Zerrusen's, Boyd's, and the John Doe Defendants' patent infringement has been and continues to be willful, and trebling Philips' damages;

O. enjoining OEM, Brilliance, Cadmus, Zerrusen, Boyd, and the John Doe Defendants from making, having made, using, importing, or selling CD-Discs under 35 U.S.C. § 283, and/or from continuing to breach the Second Workout Agreement and the 2006 Payment Agreement;

P. directing OEM, Brilliance, Cadmus, Zerrusen, Boyd, and/or the John Doe Defendants to pay Philips' attorneys' fees and costs under 35 U.S.C. § 285 and/or the Second Workout Agreement and the 2006 Payment Agreement;

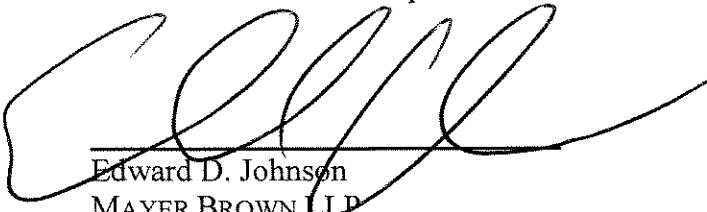
Q. directing OEM, Brilliance, Cadmus, Zerrusen, Boyd, and the John Doe Defendants to pay prejudgment and post-judgment interest;

R. providing such other and further relief as this Court deems just and appropriate.

Jury Trial

Philips demands a jury trial on all claims set forth in this Complaint.

Date: June 10, 2008



Edward D. Johnson
 MAYER BROWN LLP
 Two Palo Alto Square, Suite 300
 3000 El Camino Real
 Palo Alto, California 94306-2112
 Tel: (650) 331-2000
 Fax: (650) 331-2060

Christopher J. Houpt
 MAYER BROWN LLP
 1675 Broadway
 New York, New York 10019
 Tel: (212) 506-2380
 Fax: (212) 849-5830

Vince P. Kovalick
 John F. Hornick
 Samuel C. Bass
 FINNEGAN, HENDERSON, FARABOW,
 GARRETT & DUNNER, L.L.P.
 901 New York Avenue, N.W.
 Washington, D.C. 20001-4413
 Tel: (202) 408-4000
 Fax: (202) 408-4400

*Attorneys for Plaintiffs
 Koninklijke Philips Electronics N.V. and
 U.S. Philips Corporation*

EXHIBIT A

United States Patent [19]

Kramer

[11] Patent Number: 5,068,846

[45] Date of Patent: Nov. 26, 1991

[54] REFLECTIVE, OPTICAL RECORD CARRIER

[75] Inventor: Pieter Kramer, Eindhoven, Netherlands

[73] Assignee: U.S. Philips Corporation, New York, N.Y.

[21] Appl. No.: 858,550

[22] Filed: Apr. 23, 1988

Related U.S. Application Data

[63] Continuation of Ser. No. 146,554, May 5, 1980, abandoned, which is a continuation of Ser. No. 949,919, Oct. 10, 1978, abandoned, which is a continuation of Ser. No. 772,914, Feb. 28, 1977, abandoned, which is a continuation of Ser. No. 344,867, Mar. 26, 1973, abandoned.

[30] Foreign Application Priority Data

Sep. 2, 1972 [NL] Netherlands 7211999

[51] Int. Cl. 5 G11B 7/24; H04N 5/85

[52] U.S. Cl. 369/275.1; 358/342; 369/275.5; 369/109

[58] Field of Search 358/342; 365/113, 120; 369/275, 109, 93-94, 125, 107, 111, 275.1, 275.4, 275.5, 275

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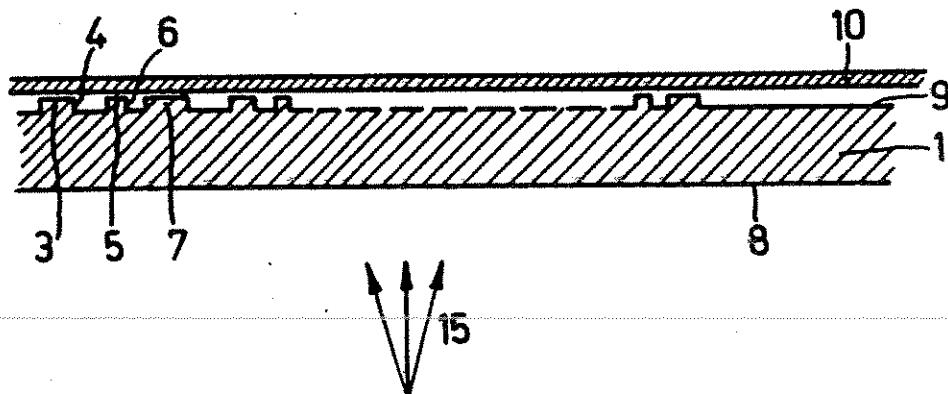
Rice et al., An Experimental Television Recording and Playback System Using Photographic Discs, Journal of the SMPTE, vol. 79, No. 11, 11/70, pp. 997-1002.

Primary Examiner—Robert Weinhardt
Attorney, Agent, or Firm—Algy Tamoshunas; Leroy Eason

[57] ABSTRACT

A record carrier for information, for example video and/or audio information, in the form of a disk-shaped carrier substrate provided with an optical structure in accordance with the information is described. By making the optical structure radiation-reflecting and the substrate radiation-transmitting, whilst the surface of the substrate more remote from the optical structure forms both the entrance face and the exit face for the read radiation, and by coating a surface of the optical structure more remote from the substrate with an additional layer, a simple record carrier is obtained which is well protected against dust particles and damage.

7 Claims, 3 Drawing Sheets



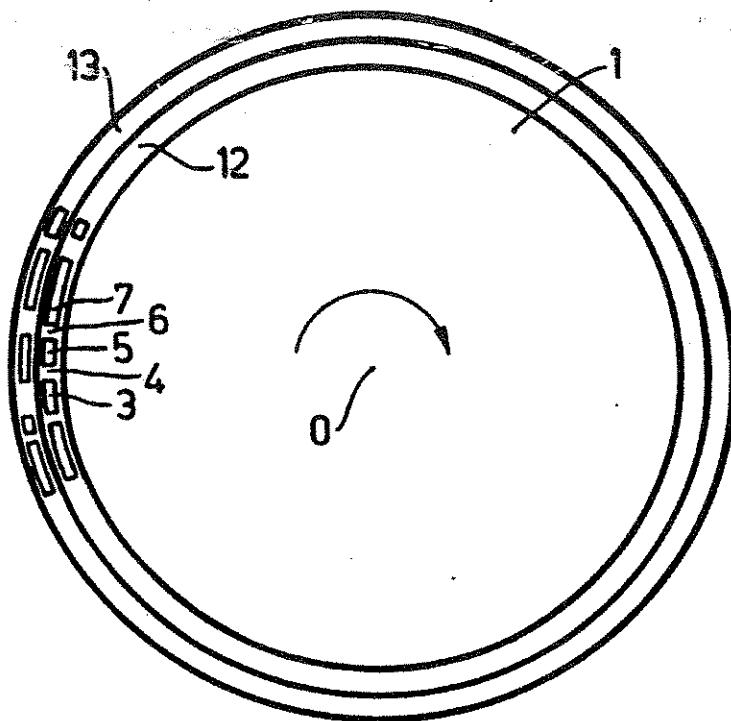


Fig.1

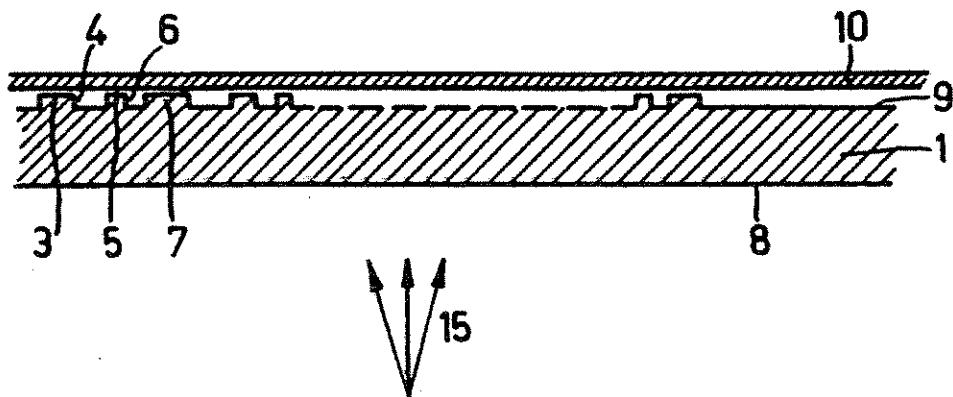


Fig.2

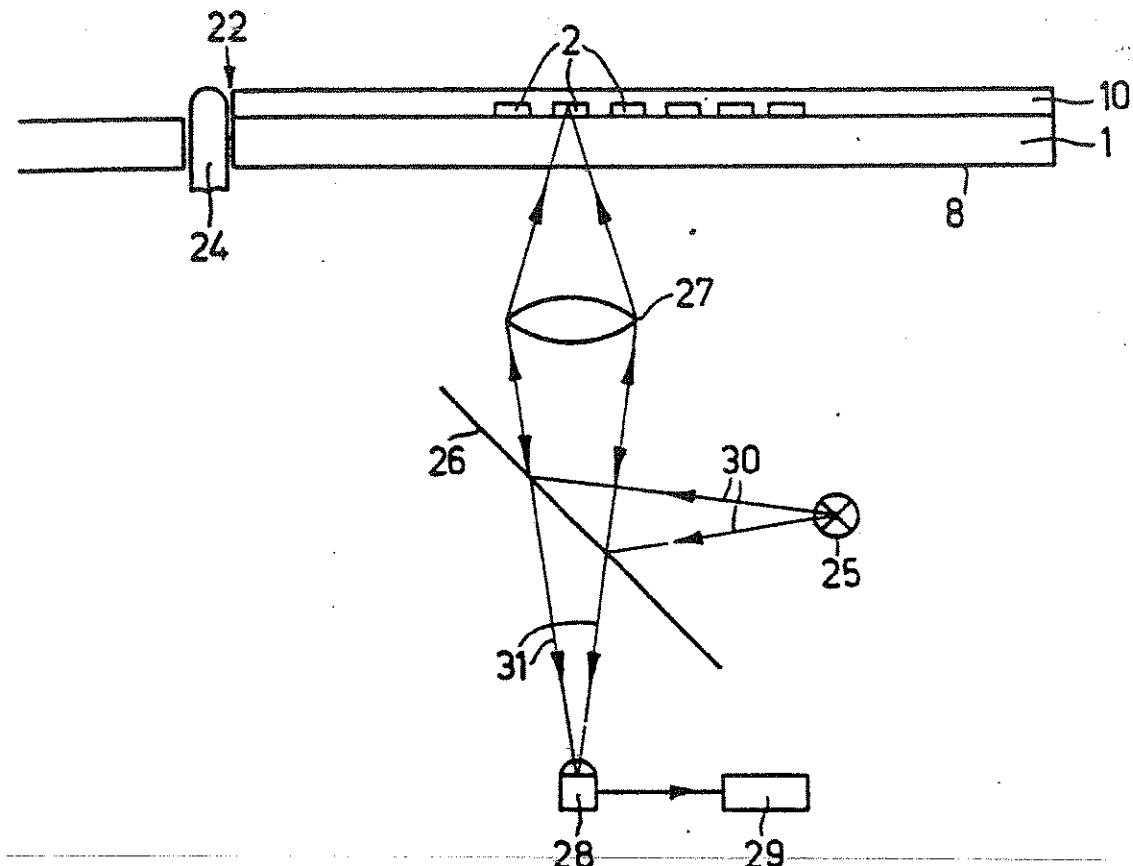


Fig.3

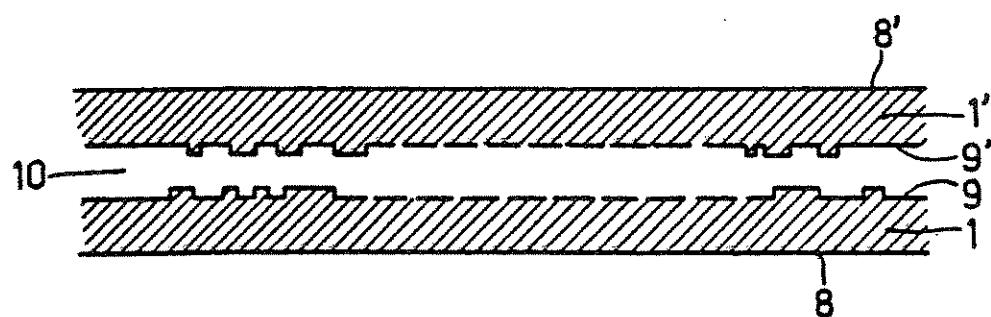


Fig.4

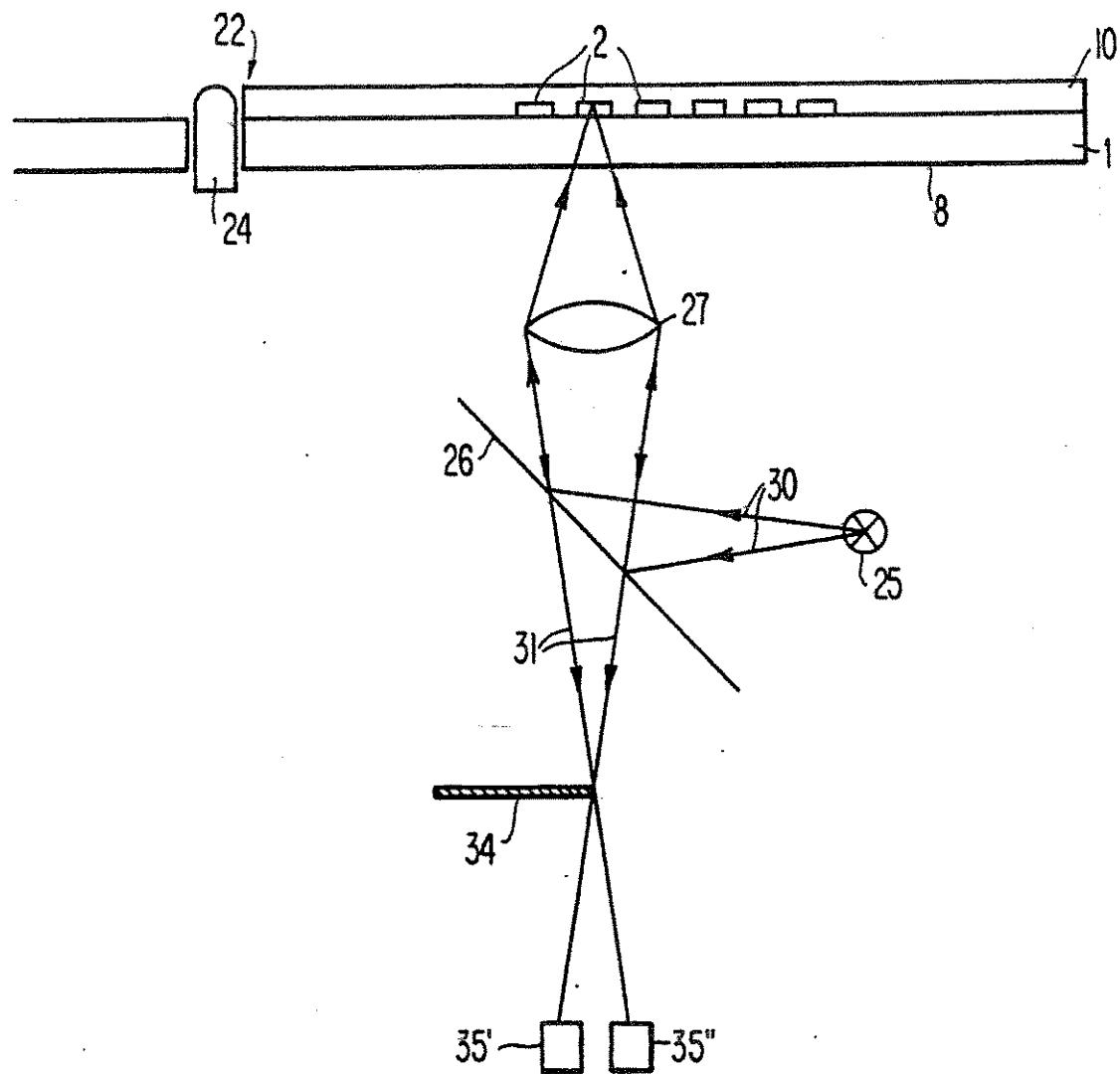


FIG. 5

REFLECTIVE, OPTICAL RECORD CARRIER

This application is a continuation of Ser. No. 146,554, filed May 5, 1980, which is a continuation of Ser. No. 949,919, filed Oct. 10, 1978, which is a continuation of Ser. No. 772,914, filed Feb. 28, 1977, which is a continuation of Ser. No. 344,867, filed Mar. 26, 1973, all such prior applications having been abandoned. This application is, further, a continuation-in-part of Ser. No. 229,285, filed Feb. 25, 1972, abandoned, which was continued as application Ser. No. 396,399, filed Sept. 12, 1973, abandoned, which was continued as application Ser. No. 618,215, filed Sept. 30, 1975, and issued as U.S. Pat. No. 4,041,530, dated Aug. 9, 1977.

The invention relates to a record carrier for information, for example video and/or audio information, in the form of a disk-shaped carrier substrate on which an optical structure is provided in accordance with the information, which record carrier is intended to be read by means of optical radiation. The invention also relates to an apparatus for reading the record carrier.

Such a record carrier and read apparatus are known and are described, *inter alia*, in "Journal of the S.M.P.T.E." 79 (November 1970) pages 997-1002. In the known record carrier the information is stored in analog form, for example in the form of areas which have different absorption coefficients and are arranged in tracks. This registration carrier is read in the transmission mode in which a read beam enters the carrier on the side of the optical structure and emerges from it on the opposite side. In its passage through the carrier the beam is modulated by the structure in accordance with the information stored in it. The modulated beam is converted into an electric signal by a radiation-sensitive detector.

Because a large amount of information is stored on the record carrier, the details of the optical structure are very small, if, for example, a video program having a duration of 45 minutes is stored on a disk record carrier having an outer diameter of 30 cm, the size of the details will be of the order of 1 μm . Reading such a fine structure is highly susceptible to dust particles, fluff and the like. If these small objects lie on the optical structure, they may cover a large number of adjacent tracks and details in these tracks, preventing the latter from being read. In addition there is a very real possibility that, for example when the record carrier is handled or placed in the read apparatus, scratches and the like are made in the optical structure. Because the record carrier is intended to be played back in non-ideal circumstances, for example in the living room, provisions must be made to render the optical structure more or less unsusceptible to dust and damage.

The aforementioned paper proposes to coat the optical structure with an additional transparent layer. This is done to ensure that dust particles screen off only part of the read beam focussed on the optical structure of the record carrier. However, this requires the protective layer to have a minimum thickness of the order of many times the depth of focus of the lens used, for example a thickness of 100 μm . Moreover, the protective layer must intimately engage the optical structure, preventing the occurrence of local air bubbles between the optical structure and the protective layer.

In the known apparatus it is attempted to maintain the focus of the objective which focusses the read beam on the optical structure by causing the objective to "faint"

on an air cushion on the record carrier. This presupposes, however, that the thickness of the protective layer is constant throughout the entire surface, or at least that it contains no variations in excess of the depth of focus of the objective, which is of the order of 1 μm . Consequently the protective layer has to satisfy exacting requirements.

It is an object of the present invention to provide a record carrier in which the optical structure is protected against dust particles and damage without the use of a protective layer which is required to satisfy stringent requirements. For this purpose the record carrier according to the invention is characterized in that the optical structure is a radiation-reflecting structure and the carrier substrate is radiation-transmitting, the surface of the carrier substrate more remote from the optical structure forming both the entrance face and the exit face for the read radiation. In this record carrier the carrier substrate itself ensures that dust particles are sufficiently spaced away from the optical structure.

According to a further feature of a record carrier according to the invention, the surface of the optical structure more remote from the carrier substrate is provided with an additional layer. Because the optical structure is completely embedded between two layers, it cannot readily be damaged.

The optical structure is read in the reflection mode, which means that the read beam is modulated by reflection at the optical structure. The additional layer is not traversed by the read beam and is only required to protect the optical structure from damage. Hence this layer need not satisfy exacting requirements. It need not be radiation-transmissive and need not have a constant thickness throughout its surface. In addition, it need not accurately engage the optical structure. It may, for example, be a plate which is secured to the carrier substrate along the edge.

The reflecting optical structure may be in the form of co-planar radiation-reflecting regions and intermediate areas, the areas having a coefficient of reflection different from that of the regions. Preferably, however, the optical structure consists of regions and intermediate areas having equally high reflection coefficients but situated at different levels.

The record carrier according to the invention differs from the known record carrier not only in construction but also in the manner in which during reading the read beam is maintained in focus on the optical structure. The flatness of the carrier substrate also which is required when employing the known method (an objective supported by an air cushion) can only be achieved by painstaking polishing. This greatly increases the cost of the disk. Optical determination according to the invention of the deviation between the plane of the optical structure and the plane in which the beam of radiation is focussed enables the range of permissible thickness variations over the carrier substrate to be extended to, for example, 300 μm .

Embodiments of the invention will now be described, by way of example, with reference to the accompanying diagrammatic drawings, in which:

FIG. 1 is a plan view of a record carrier not coated with an additional layer,

FIG. 2 is a cross-sectional view of an embodiment of a record carrier according to the invention,

FIG. 3 is a known apparatus for reading the record carrier,

FIG. 4 is a cross-sectional view of a second embodiment of a record carrier according to the invention, and

FIG. 5 shows an arrangement for detecting focusing errors during reading of information from the record carrier.

FIG. 1 is a plan view of a circular record carrier. The carrier may contain a spiral structure comprising a plurality of quasi-concentric tracks. As an alternative, the tracks may be concentric, as is shown in FIG. 1. Only parts of two adjacent tracks denoted by 12 and 13 are shown. Each of the tracks contains, for example, a crenellated structure comprised of depressions which are spaced apart by intermediate areas or lands in the track direction, the dimensions of which are shown greatly exaggerated in FIG. 2, which is a tangential sectional view of a record carrier according to the invention. The spacings between, and the length of, the upper surfaces 3 and 5, 5 and 7, and so on of the merlons are different. Their heights 4, 6, and so on are equal to one another and, preferably, to about one quarter wavelength of the radiation used for reading. Instead of perpendicular leading and trailing edges the optical structure may alternatively have smooth transitions between the upper and lower surfaces.

The carrier substrate 1 transmits the radiation used for reading. The optical structure is provided on the upper surface of the disk, whilst the lower surface acts both as the entrance surface for the unmodulated beam and as the exit surface for the modulated beam. The faces of the optical structure have been made highly reflecting, for example in that after the structure has been pressed in the substrate a metal layer is deposited on it from vapour. The thickness of this metal layer is not of importance. A protective layer 10 is provided on top of the optical structure. The only purpose of this layer is to protect the optical structure of the record carrier against damage. Hence any layer which provides protection against rough handling of the carrier may be used. As FIG. 2 shows, the layer may be a thin disk which is spaced from the optical structure and is secured to the substrate along the edge only. In addition, a sheet of paper or a foil of a synthetic material provided with an adhesive on one surface may be stuck onto the optical structure. As an alternative, as is shown in FIG. 4, the layer, for example a sprayed layer of lacquer, may be provided on and between the merlons, in which case the thickness of the layer must be greater than the height of the merlons. Because the optical structure lies between the substrate 1 and the layer 10 it is fairly capable of withstanding rough handling.

A read beam (15) is modulated in phase by the crenellated structure shown in FIG. 2. As an alternative, the upper surface 9 of the substrate may be provided with a structure of radiation-reflecting regions and radiation-absorbing intermediate areas, causing the read beam to be modulated in amplitude.

When the disk record carrier shown in FIG. 1 is to be read, it is rotated at a speed of, for example, 1500 revolutions per minute by means of a driving spindle 24, as is shown in FIG. 3. In this Figure the record carrier is shown in radial section. A read beam 30 emitted by a source of radiation 25 is reflected to the record carrier by a half-silvered mirror 26. The beam passes through the carrier substrate 1 to be reflected at the optical structure (shown as tracks 2) on the upper surface of the disk. An objective 27 forms an image of the source on the optical structure, the size of this image being of the order of the smallest detail of the structure.

During rotation of the record carrier the read beam is modulated in time in accordance with the sequence of, for example, the merlons in a track. The modulated read beam 31 passes through the half-silvered mirror 26 to be intercepted by a radiation-sensitive detector 28. At the output of the detector an electric signal is produced which corresponds to the information stored in the record carrier. The detector 28 may be connected to known electronic means for converting the output signal of the detector into picture and sound.

The advantages of reading in reflection will be clear from FIG. 3. All the optical elements and the electronic processing devices are disposed on one side of the record carrier, permitting the carrier to be readily placed in the read apparatus. Moreover the elements may be incorporated so as to be well protected. Furthermore the number of optical elements may be reduced, because some elements are used twice. The reduced number of elements results in a reduced likelihood of relative oscillations.

Also, the record carrier may be read in a non-dustfree room, for example a living room, for dust particles deposited on the layer 10 have no effect, because the read beam does not pass through this layer. A dust particle on the lower surface 8 of the substrate may reduce the intensity of the radiation incident on the optical structure. However, a reduction in intensity is not highly inconvenient, because the information is recorded in digital form. A dust particle cannot entirely intercept the beam, because the beam has a comparatively large diameter in the plane of the dust particle. This is due to the fact that the substrate by nature has a certain thickness, *inter alia* because of the desired rigidity.

If the record carrier is to be suitable for manufacture by mass production methods, the flatness of the substrate should not have to satisfy exacting requirements. However, because the depth of focus of the objective 27 is of the order of 1 μm , variations in the thickness of the substrate may cause parts of the optical structure to become located outside the focussed light spot at the sites of these variations. These thickness variations, which cannot be compensated for by an objective floating on an aircushion, may cause the detector to receive not only radiation from the track part to be read, but also radiation from the surroundings of this part. As a result, the modulation depth of the output signal from the detector is reduced, while moreover, because not one track only but adjacent tracks are also illuminated, crosstalk may occur.

According to the invention the record carrier described may be used to advantage if during reading an optical focussing detection method is employed. For this purpose read apparatuses provided with focussing detection systems described in the patents identified below may be used. The use of the apparatuses for reading the record carrier according to the invention described in these patents means that the possibilities of the apparatuses described therein are particularly efficiently utilized.

One such arrangement is illustrated in FIG. 5 wherein a screen 34 is disposed in the path of the reflected beam 31 at a position such that the detectors 35' and 35'' receive equal amounts of radiation when the beam is properly focused on the reflective optical structure. If, on the other hand, the plane of the optical structure shifts from the desired position, the screen will intercept the rays which travel to one of the detectors

so that said one detector will receive less radiation than the other. The amount and direction that the plane of the reflective optical structure deviates from the desired position can thus be determined by comparison of the output signals from the detectors 35' and 35".

An optical determination of the deviation between the plane of the optical structure and the plane in which the read beam is focussed may be effected by imaging a grating constituted by adjacent tracks of the optical structure on two physical gratings spaced from the record carrier by different distances. The difference between the output signals of the detectors disposed behind the gratings indicates the magnitude and the direction of any deviation. A read apparatus including such focussing detection is described in U.S. Pat. No. 3,833,769.

A second possibility is offered by the apparatus described in U.S. Pat. No. 4,010,317 in which two detectors are arranged side by side, viewed in the direction of length of the track. The detectors intercept two different parts of the modulated beam.

As an alternative, the deviation between the plane of the optical structure and the plane in which the read beam is focussed may be detected without using the details in the optical structure, in contradistinction to the two aforementioned apparatuses. In such a method the optical structure is used only as a reflecting face, as is described in U.S. Pat. No. 3,876,841 and U.S. Pat. No. 3,876,842. By means of, inter alia, this face an image of an object is formed, the location of this image being determined by the location of the plane of the reflecting optical structure.

FIG. 4 shows a second embodiment of a record carrier according to the invention. Two substrates 1 and 1' which each have an optical structure on one surface 9 and 9' respectively are combined with an intermediate layer 10 to form an integral unit. Such a record carrier may be manufactured by methods known from the technology of disk-shaped sound records. The structures on the surfaces 9 and 9' are read by means of beams in opposite directions. In this embodiment the layer 10 is only required to separate the optical structures and need not protect them against external influences.

In the record carrier shown in FIG. 4 the two halves of one program may be stored in the two optical structures.

The record carrier shown in FIG. 4 is eminently suitable to realize a further invention idea. According to this idea information about the same colored pictures is stored in different color codes in two optical structures of one record carrier. In one of these optical structures the program may be recorded, for example, according to the PAL-standard and in the other optical structure according to the Secam-standard or the NTSC-standard. The advantage is that the same information on one record carrier may be used in a large geographic area in spite of the fact that different apparatuses are used for rendering pictures and sound visible and audible respectively.

What is claimed is:

1. A record carrier containing information which is readable by a beam of radiation, said record carrier comprising a disc-shaped, radiation-transmitting substrate having a pair of planar surfaces on opposite sides thereof, a non-transmissive, radiation reflecting optical structure on one of said planar surfaces of said substrate, said optical structure comprising a plurality of adjacent, circular tracks extending about the center of said sub-

strate and defining turns of a spiral or concentric circles spaced from each other in the radial direction, each circular track having a plurality of depressions in said one surface of said substrate, said depressions being spaced apart in the track direction by intermediate areas, and a reflective layer extending over said intermediate areas and said depressions so that upon illumination by a convergent beam of radiation which is projected on and enters through the other of said planar surfaces and which passes through said substrate and is focussed on said optical structure to a spot of a size of the order of the smallest detail of said optical structure, the radiation is modulated by said depressions and intermediate areas in accordance with the sequence thereof and the modulated radiation is reflected by said reflective layer towards and exists through said other planar surface, said substrate defining a substantially rigid support for said optical structure and having a thickness such that in the plane of said other surface, which forms the entrance and exit faces for the radiation, the diameter of the beam is sufficiently larger than the diameter of said spot so that dust particles, scratches and the like on said other surface, do not interfere with readout of information by the convergent beam focussed to said spot on said optical structure, and an additional layer secured to the side of said substrate remote from said other surface, said optical structure being disposed between said substrate and said additional layer so that it is protected from damage during handling.

2. The record carrier according to claim 1 wherein said depressions are pressed into said one surface of said substrate and said reflective layer is metallic and is deposited on said one surface.

3. The record carrier according to claim 1 or 2 wherein the thickness of said additional layer is substantially smaller than the thickness of said substrate.

4. The record carrier according to claim 2 wherein said reflective, metallic layer is deposited on said one surface from vapour.

5. The record carrier according to claim 4 wherein said additional layer is a layer of lacquer sprayed on said optical structure.

6. An apparatus for reading information stored on a record carrier having a disk-shaped radiation transmitting substrate with a pair of parallel, planar surfaces on opposite sides thereof and a non-transmissive, radiation reflecting optical structure disposed on one of said planar surfaces, said optical structure comprising a plurality of adjacent, circular tracks extending about the center of the substrate and defining turns of a spiral or concentric circles spaced from each other in the radial direction, each circular track having a plurality of depressions spaced apart by intermediate areas in the track direction, said apparatus comprising means for supporting the record carrier for rotation about the center of the substrate in a plane parallel to the plane of said one surface, means positioned on the side of said substrate remote from said optical structure for producing a beam of radiation which is projected onto the other surface of said substrate so that the radiation passes through said substrate and is incident on said reflective optical structure, an objective system for focusing said beam to a spot on said optical structure so that the radiation is modulated by said optical structure in accordance with information stored thereby and the modulated radiation is reflected by said optical structure back through said other surface and passes through said objective system, said substrate having a thickness such that in the plane

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of said other surface the diameter of the beam is sufficiently larger than the diameter of said spot so that dust particles, scratches and the like on said other surface do not interfere with readout of information by the beam focussed to said spot on said optical structure, radiation-sensitive means for converting the modulated radiation into an electrical signal, said radiation sensitive means being disposed in the path of the modulated radiation reflected by the optical structure, and means for deriving from the radiation a signal indicative of a deviation of the plane of the optical structure from the plane at which the radiation is focused by said objective system for correcting the focusing.

7. A record carrier containing information which is readable by a beam of radiation, said record carrier comprising a pair of disc-shaped, radiation-transmitting substrates each having a pair of planar surfaces on opposite sides thereof, a non-transmissive, radiation reflecting optical structure on one of said planar surfaces of each substrate, said optical structures each comprising a plurality of adjacent, circular tracks extending about the center of said substrate and defining turns of spiral or concentric circles spaced from each other in the radial direction, each circular track having a plurality of depressions which are spaced apart in the track direc- 25

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tion by intermediate areas, said substrates being disposed in a superposed relationship with said optical structures being adjacent each other so that upon illumination of said one optical structure by a beam of radiation which is projected on and enters through the other of said planar surfaces of the associated substrate and which passes through said associated substrate and is focussed on said one optical structure to a spot of a size of the order of the smallest detail of the optical structure, the radiation is modulated by said depressions and intermediate areas in accordance with the sequence thereof and the modulated radiation is reflected by said one optical structure towards and exits through said other planar surface of said associated substrate, each substrate defining a substantially rigid support for the respective optical structure and having a thickness such that in the plane of said other surface, which forms the entrance and exit faces for the radiation, the diameter of the beam is sufficiently larger than the diameter of said spot so that dust particles, scratches and the like on said other surface, do not interfere with readout of information by the convergent beam focussed to said spot on said optical structure.

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EXHIBIT B

CD DISC PATENT LICENSE AGREEMENT

This Agreement is entered into this 1st day of July, 2002 by and between

KONINKLIJKE PHILIPS ELECTRONICS N.V., having its registered office in Eindhoven, The Netherlands, (hereinafter referred to as "Philips")

and

OPTICAL EXPERTS MANUFACTURING, INC., having its registered office in 8500 South Tryon Street, Charlotte, NC 28273 (hereinafter referred to as "Licensee").

WHEREAS, the Philips' group of companies has for many years been engaged in research and development of systems, in which signals encoded in digital form and stored on a disc are read and reproduced by means of devices using an optical read-out beam, and has acquired valuable know-how and expertise therein;

WHEREAS, one of the achievements of such research and development efforts has been a revolutionary high-fidelity sound storage and reproduction system, of which the specifications have been further defined in a joint research and development co-operation with Sony Corporation ("Sony") and which has been presented under the name "Compact Disc Digital Audio System" (CD-Audio System);

WHEREAS, on the basis of the CD-Audio System Philips and Sony have developed a further system, which has been presented under the name "Compact Disc Data System" (CD-ROM System);

WHEREAS, Philips and Sony have developed an additional multi-session CD system, which has been presented under the name "Enhanced Music Compact Disc System" ("Enhanced Music CD System" or "CD Extra System" (the CD-Audio System, the CD-ROM System and the CD Extra System are collectively referred to as "the CD Systems");

WHEREAS, Philips and Sony each own certain patents relating to the CD Systems;

WHEREAS, Philips has been authorized by Sony to grant licenses under certain patents relating to the CD Systems, which are owned or controlled by Sony and its Associated Companies (as hereinafter defined), as well as under such patents relating to the CD Systems as are jointly owned by Philips and Sony;

WHEREAS, Philips and Sony have each retained their rights to license their respective patents separately and to give non-assertion undertakings with regard to jointly owned patents, whether within or outside the standard specifications of the CD Systems, so that interested manufacturers may opt to take out separate licenses under the relevant patents of each of Philips and Sony, instead of a combined license;

WHEREAS, Licensee has requested from Philips a license under the relevant patents of Philips and Sony relating to CD-Discs (as hereinafter defined) and wishes such CD-Discs to be compatible with devices capable of playing discs, conforming to the Standard Specifications for any of the relevant CD Systems;

WHEREAS, Philips is willing to grant Licensee a license under the relevant patents and to make available certain basic information relating to the CD Systems, on the conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual obligations and covenants hereinafter set forth, the parties hereto have agreed as follows:

1. Definitions

The following terms used in this Agreement shall have the meanings set out below:

- 1.1 "Disc" shall mean a non-recordable reflective disc-shaped information carrier comprising any kind of information including, but not limited to, audio, video, text and/or data-related information, which is irreversibly stored in a layer during and as an integral part of the manufacturing process of the disc in a form which is optically readable by playback devices using a laser-beam.
- 1.2 "CD-Audio Disc" shall mean a Disc comprising audio information encoded in digital form, which is optically readable by a CD-Audio Player (as hereinafter defined) and which conforms to the CD-Audio Standard Specifications (as hereinafter defined). A CD-Audio Disc may, in addition to audio information, comprise CD Text information.
- 1.3 "CD-Audio Maxi-Single" shall mean a CD-Audio Disc which, in addition to conforming to the CD-Audio Standard Specifications, conforms to the CD-Audio Maxi-Single Standard Specifications.
- 1.4 "CD-ROM Disc" shall mean a Disc containing data, arranged in sectors as defined in the CD-ROM Standard Specifications (as hereinafter defined) in the chapter Digital Data Structure, Parts I to V, under the names: General data specification, Sync., Header, User data and Auxiliary data respectively, and protected against errors in accordance with the error correction system as defined in the CD-ROM Standard Specifications in the chapter Error Correction System under the name Cross Interleaved Reed-Solomon Code - "CIRC".
- 1.5 "CD-ROM Disc mode 1" shall mean a CD-ROM Disc with an additional error correction system for computer or other data as defined in the CD-ROM Standard Specifications in the chapter Digital Data Structure, Part VII, under the name Error Detection and Error Correction specification (a third layer error correction).
- 1.6 "CD-ROM Disc mode 2" shall mean a CD-ROM Disc containing data protected against errors solely by the error correction system as defined in the CD-ROM Standard

Specifications in the chapter Error Correction System under the name Cross Interleaved Reed-Solomon Code - "CIRC".

- 1.7 "CD-ROM XA Disc sub-mode 1" shall mean a CD-ROM Disc, which is in compliance with the CD-ROM-XA Specifications (as hereinafter defined) and comprises at least one sector containing data protected by an additional error correction system for data as defined in the CD-ROM Standard Specifications in the chapter Digital Data Structure, Part VII, under the name Error Detection and Error Correction specification (a third layer error correction).
- 1.8 "CD-ROM XA Disc sub-mode 2" shall mean a CD-ROM Disc, which is in compliance with the CD-ROM-XA Specifications and comprises solely sectors containing data protected against errors solely by the error correction system as defined in the CD-ROM Standard Specifications in the chapter Error Correction System under the name Cross Interleaved Reed-Solomon Code - "CIRC".
- 1.9 "CD Extra Disc" shall mean a Disc conforming to the Enhanced Music CD Standard Specifications (as hereinafter defined) and which comprises first information encoded in digital form, which is optically readable by a CD-Audio Player and which conforms to the CD-Audio Standard Specifications, and second information conforming to the CD-ROM XA Specifications and which is optically readable by a CD-ROM Player or by an Enhanced Music CD Player (as hereinafter defined).
- 1.10 "CD Extra Disc sub-mode 1" shall mean a CD Extra Disc wherein the second information is in accordance with the data format on a CD-ROM XA Disc sub-mode 1.
- 1.11 "CD Extra Disc sub-mode 2" shall mean a CD Extra Disc wherein the second information is solely in accordance with the data format on a CD-ROM XA Disc sub-mode 2.

The CD-Audio Disc, the CD-Audio Maxi-Single, the CD-ROM Disc mode 1 and mode 2, the CD-ROM XA Disc sub-mode 1 and sub-mode 2 and the CD Extra Disc sub-mode 1 and sub-mode 2 are collectively referred to as "CD-Disc(s)".

- 1.12 "CD-Audio Standard Specifications" shall mean the specifications for the CD-Audio System, including, if applicable, the Subcode/Control and Display System, Channels R ..W, chapter 5.8, the CD-TEXT mode, as made available, modified or extended from time to time.
- 1.13 "CD-Audio Maxi-Single Standard Specifications" shall mean the specifications for the CD-Audio Maxi-Single system, specifying among other things a maximum playing time of 30 minutes, as made available, modified or extended from time to time. For the purpose of this Agreement, the CD-Audio Maxi-Single Standard Specifications shall be considered to form part of the CD-Audio Standard Specifications.
- 1.14 "CD-ROM Standard Specifications" shall mean the specifications for the CD-ROM System as made available, modified or extended from time to time.
- 1.15 "CD-ROM-XA Specifications" shall mean the specifications of the System Description CD-ROM XA as made available, modified or extended from time to time.

1.16 "Enhanced Music CD Standard Specifications" shall mean the specifications for the Enhanced Music CD System as made available, modified or extended from time to time. The CD-Audio Standard Specifications, the CD-Audio Maxi-Single Standard Specifications, the CD-ROM Standard Specifications, the Enhanced Music CD Standard Specifications and the CD-ROM-XA Specifications are collectively referred to as the "CD Standard Specifications".

1.17 "Player" shall mean a single spindle playback device for optically reading information stored on a Disc and converting such information into electrical signals for reproduction purposes.

1.18 "CD-Audio Player" shall mean a Player solely capable of reproducing information stored on a CD-Audio Disc or CD-Audio Maxi-Single and converting such information into electrical signals, in accordance with the CD-Audio Standard Specifications, which electrical signals are directly capable of and intended to be used for sound reproduction through amplifiers and loudspeakers.

1.19 "CD-ROM Player" shall mean a Player solely capable of reproducing information stored on any kind of CD-ROM Disc and converting such information into electrical signals, in accordance with the CD-ROM Standard Specifications, which electrical signals are directly capable of and intended to be used for the reproduction of computer related data through data handling and/or data processing equipment.

1.20 "Enhanced Music CD Player" shall mean a Player solely capable of reproducing information stored on any kind of CD Extra Disc and converting such information into electrical signals, in accordance with the Enhanced Music CD Standard Specifications, which electrical signals are directly capable of and intended to be used for the reproduction of video, text and/or computer related data through data handling and/or data processing equipment.

1.21 "Combi-Player" shall mean a Player which is any combination of a CD-Audio Player, a CD-ROM Player and/or an Enhanced Music CD Player.

The CD-Audio Player, the CD-ROM Player, the Enhanced Music CD Player and the Combi-Player are collectively referred to as the "CD-Players".

1.22 "Licensed Product(s)" shall mean

Option A: CD-Audio Discs and/or CD-Audio Maxi Singles

Option B: CD-Audio Discs and/or CD-Audio Maxi Singles containing CD Text information

Option C: CD-ROM Discs mode 1

Option D: CD-ROM Discs mode 2

Option E: CD-ROM XA Discs sub-mode 1

Option F: CD-ROM XA Discs sub-mode 2

Option G: CD-Extra Discs sub-mode 1

Option H: CD-Extra Discs sub-mode 2

Option I: CD-Extra Discs sub-mode 1 containing CD Text information

Option J: CD-Extra Discs sub-mode 2 containing CD Text information

Option K: CD-Extra Discs containing video-related data in accordance with the MPEG Video System ISO DIS 11172 Standard

as selected by Licensee, manufactured and/or sold in accordance with the provisions hereof, which are duly reported and on which the royalties due hereunder are paid in accordance with the provisions of this Agreement.

Option(s):

A B C D E F
 G H I J K

(please tick any combination as appropriate)

Initial: BL

1.23 "Licensed Patents" shall mean any one or more of the essential patents for the manufacture and/or sale of the various types of CD-Discs, as follows:

Category I

- (a) CD-Audio Discs and/or CD-Audio Maxi Singles, as listed in Annex A1;
- (b) CD-Audio Discs and/or CD-Audio Maxi Singles containing CD Text information, as listed in Annex A1 and Annex A7;

Category II

- (c) CD-ROM Discs mode 1, as listed in Annex A1 and Annex A2;
- (d) CD-ROM Discs mode 2, as listed in Annex A1 and Annex A3;
- (e) CD-ROM XA Discs sub-mode 1, as listed in Annex A1 and Annex A4;
- (f) CD-ROM XA Discs sub-mode 2, as listed in Annex A1 and Annex A5;

Category III

- (g) CD Extra Discs sub-mode 1, as listed in Annex A1, Annex A6 and Annex A4;
- (h) CD Extra Discs sub-mode 2, as listed in Annex A1, Annex A6 and Annex A5;
- (i) CD Extra Discs sub-mode 1 containing CD Text information, as listed in Annex A1, Annex A6, Annex A4 and Annex A7;
- (j) CD-Extra Discs sub-mode 2 containing CD Text information, as listed in Annex A1, Annex A6, Annex A5 and Annex A7;
- (k) CD-Extra Discs containing video-related data in accordance with the MPEG Video System ISO DIS 11172 Standard, as listed in Annex A1, Annex A6, Annex A4 or Annex A5 as well as Annex A8.

The term "essential" as used in relation to patents in this Agreement shall refer to patents, the use of which is necessary (either directly or as a practical matter) for compliance with the Standard Specifications defining the relevant CD System(s).

Philips has commissioned an independent patent expert to review the European, Japanese and US patents listed as essential in Annexes A1, A2, A3, A4, A5, A6, A7 and A8 in order to confirm the essentiality of such patents. In the event that such independent patent expert would find that any of the patents does not qualify as essential as defined in this Agreement, Philips will delete such patent (as well as the equivalent corresponding patents) from the relevant Annex and such patent will be put on a list of non-essential patents. Notwithstanding such deletion, Licensee shall retain the right to continue the use of such deleted patent(s) in accordance with the provisions of this Agreement, without any additional payment, unless Licensee explicitly notifies Philips in writing of its decision to waive such right.

In the event that Philips or Sony (or any of their respective Associated Companies) would have additional patents relevant to CD-Audio Discs (except for CD Text information and other than patents acquired from third parties after the date of January 1, 1983), CD-ROM Discs (other than patents acquired from third parties after the date of July 1, 1986), CD Extra Discs (other than patents acquired from third parties after the date of January 1, 1996) or the CD Text mode of CD-Discs, excluding CD-ROM Discs, (other than patents acquired from third parties after the date of October 1, 1996) in their respective patent portfolios which are essential to the manufacture, sale or other disposal of CD-Discs and which have a filing date or are entitled to a priority date prior to either January 1, 1983 for CD-Audio Discs, July 1, 1986 for CD-ROM Discs, January 1, 1996 for CD Extra Discs or October 1, 1996 for the CD Text mode of CD-Discs, excluding CD-ROM Discs, but which have not been listed as essential patents in the respective Annexes hereto, Philips will notify Licensee accordingly and such additional patents will be added to the Licensed Patents and such addition shall not affect the provisions of this Agreement, including without limitation, the duration of this Agreement as specified in Clause 12.1 and the duration of the grant-back undertakings on the part of Licensee pursuant to Clause 2. Any patents as may be added as essential patents to any of the respective Annexes hereto, will similarly be subject to the review by the independent patent expert in accordance with the preceding paragraph.

The patent lists provided to Licensee upon execution of this Agreement are subject to change in accordance with the provisions of this Agreement. With regard to the rights granted to Licensee hereunder, the patent lists published by Philips on its website (www.licensing.philips.com) or otherwise communicated by Philips to Licensee after the date of execution hereof shall prevail over the lists provided to Licensee upon the execution of this Agreement.

1.24 "Associated Company" shall mean any one or more business entities (1) owned or controlled by Philips, Sony or Licensee, (2) owning or controlling Philips, Sony or Licensee, or (3) owned or controlled by the business entity owning or controlling Philips, Sony or Licensee at the material time. For the purposes of this definition a business entity shall be deemed to own and/or to control another business entity if more than 50% (fifty per cent) of the voting stock of the latter business entity, ordinarily entitled to vote in the election of directors, (or, if there is no such stock, more than 50% (fifty per cent) of the ownership of or control in the latter business entity) is held by the owning and/or controlling business entity.

1.25 "Territory" shall mean the geographic area known as the United States of America, its territories and possessions.

2. Grant of Rights

2.1 For the term of this Agreement and subject to the provisions hereof, Philips hereby grants to Licensee a non-exclusive, non-transferable license under the Licensed Patents (listed in the relevant Annex(es)) to manufacture Licensed Products as selected by Licensee pursuant to the Options of Clause 1.22 within the Territory in accordance with the relevant CD Standard Specifications and to sell or otherwise dispose of such Licensed Products so manufactured in all countries of the world.

2.2 Philips, also on behalf of Sony, further agrees, for as long as this Agreement is in force and effect and Licensee is in full compliance with its obligations under this Agreement, to grant Licensee upon Licensee's request, a non-exclusive, non-transferable license, either by means of a sub-license arrangement or by means of individual licenses from Philips and/or Sony respectively, on reasonable, non-discriminatory conditions, to manufacture Licensed Products in the Territory and to sell or otherwise dispose of Licensed Products so manufactured in all countries of the world, under any patents not yet licensed hereunder and which are essential to the manufacture, sale or other disposal of Licensed Products, for which Philips, Sony and/or their respective Associated Companies may hereafter acquire from third parties the right to grant licenses. It is acknowledged and agreed that in respect of the patents as may be licensed pursuant to this Clause 2.2, additional royalties may have to be paid over and above the royalties specified in Clause 5.2.

2.3 Philips, also on behalf of Sony, further agrees, for as long as this Agreement is in force and effect and Licensee is in full compliance with its obligations under this Agreement, to grant Licensee upon Licensee's request as well as to those of Licensee's Associated Companies who so request, a non-exclusive, non-transferable license, on reasonable, non-discriminatory conditions, either by means of a sub-license arrangement or by means of individual licenses from Philips and/or Sony respectively, to manufacture CD-Players and to sell or otherwise

dispose of such CD-Players so manufactured in all countries of the world under any and all present and future patents essential to the manufacture, sale or other disposal of CD-Players for which Philips, Sony and/or their respective Associated Companies have or may hereafter acquire the right to grant licenses.

2.4 In consideration of the undertakings set forth in Clauses 2.1, 2.2 and 2.3 and similar undertakings by third party licensees of Philips or any of its Associated Companies and without prejudice to the provisions of Clause 12, Licensee agrees to grant to Philips, Sony and their respective Associated Companies and to other third parties who have entered or will enter into a license agreement with Philips concerning CD-Discs, non-exclusive, non-transferable licenses, on reasonable, non-discriminatory conditions comparable to those set forth herein, to manufacture, sell or otherwise dispose of CD-Discs, as correspond with the Category of CD-Discs from which Licensee has made a selection pursuant to the Options of Clause 1.22, under any and all present and future patents, for which Licensee or its Associated Companies have or may hereafter acquire the right to grant licenses and which are essential to the manufacture, sale or other disposal of such CD-Discs and which patents were first filed or are entitled to a priority date in any country of the world prior to the date of termination of this Agreement. The duration of such licenses shall be a period ending at the expiration date of the last to expire patent of Licensee or the relevant Associated Company of Licensee, essential to the Category of CD-Discs from which Licensee has made a selection pursuant to the Options of Clause 1.22. For the avoidance of doubt, the undertaking set out in this Clause 2.4 shall only apply to those companies which accept or have accepted a similar undertaking as given by Licensee in this Clause 2.4 and only in respect of those Categories of CD-Discs from which both Licensee and such companies have made a selection.

2.5 In addition, in consideration of the undertakings set forth in Clauses 2.1, 2.2, 2.3 and 2.4 and similar undertakings by third party licensees of Philips or any of its Associated Companies and without prejudice to the provisions of Clause 12, Licensee agrees to grant to Philips, Sony and their respective Associated Companies and to other third parties who have entered or will enter into a license agreement with Philips concerning CD-Players, non-exclusive, non-transferable licenses, on reasonable, non-discriminatory conditions, to manufacture, sell or otherwise dispose of CD-Players capable of playing CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22 under any and all present and future patents, for which Licensee or its Associated Companies have or may hereafter acquire the right to grant licenses and which are essential to the manufacture, sale or other disposal of such CD-Players and which patents were first filed or are entitled to a priority date in any country of the world prior to the date of termination of this Agreement. The duration of such licenses shall be a period ending at the expiration date of the last to expire patent of Licensee or the relevant Associated Company of Licensee, essential to CD-Players capable of playing CD-Discs, as correspond with the selection made by Licensee pursuant to the Options of Clause 1.22. For the avoidance of doubt, the undertaking set out in this Clause 2.5 shall only apply to those companies which accept or have accepted a similar undertaking as given by Licensee in this Clause 2.5.

2.6 Philips undertakes that it will offer, at the request of any of Licensee's Associated Companies to any such Associated Company, a non-exclusive and non-transferable license under the Licensed Patents on reasonable and non-discriminatory conditions comparable to those set forth herein, to manufacture, sell or otherwise dispose of CD-Discs.

2.7 IT IS EXPRESSLY ACKNOWLEDGED AND AGREED THAT:

- (I) THE LICENSES AND LICENSE UNDERTAKINGS HEREIN CONTAINED WITH RESPECT TO THE MANUFACTURE OF LICENSED PRODUCTS DO NOT EXTEND TO MASTER RECORDING MACHINES, EQUIPMENT OR METHODS FOR THE REPLICATION OF DISCS, NOR TO THE MANUFACTURE OF MATERIALS OR REPRODUCTION RIGHTS FOR INFORMATION (SUCH AS AUDIO, VIDEO, TEXT AND/OR DATA-RELATED INFORMATION), CONTAINED ON DISCS TO BE PLAYED BACK ON A PLAYER. FURTHER, THE LICENSE UNDERTAKINGS WITH RESPECT TO THE MANUFACTURE OF PLAYERS DO NOT EXTEND TO THE MANUFACTURE OF COMPONENTS FOR PLAYERS (INCLUDING BUT NOT LIMITED TO SEMICONDUCTOR DEVICES, INTEGRATED CIRCUITS, LASERS, MOTORS AND LENSES), EXCEPT FOR CIRCUITRY AND/OR SYSTEM ASPECTS SPECIFIC TO THE CD SYSTEMS (AND SIMILAR OPTICAL READ-OUT SYSTEMS);
- (II) THE RIGHTS AND LICENSES GRANTED UNDER THIS AGREEMENT DO NOT EXTEND TO ANY COMBINATION OF ONE OR MORE LICENSED PRODUCTS OR PLAYERS WITH ANY OTHER ELEMENTS, PRODUCTS, SYSTEMS, EQUIPMENT OR SOFTWARE OTHER THAN THE COMBINATION OF A LICENSED PRODUCT AND A CD PLAYER.

3. Standard Specifications, Technical Information and Support

- 3.1 Upon receipt of the payment provided for in Clause 5.1 and the payment provided for in Clause 5.12, Philips shall make available to Licensee for use by Licensee in accordance with the provisions hereof, a copy of the then current version of the respective CD Standard Specifications, as correspond with the Licensed Products as selected by Licensee pursuant to the Options of Clause 1.22, together with such other information and support as Philips considers necessary for the interpretation and/or the correct application of the relevant CD Standard Specifications.
- 3.2 Licensee shall be notified in writing of any addition or modification to any of the relevant CD Standard Specifications and shall be provided with relevant information in connection therewith.
- 3.3 Philips and Licensee undertake to keep each other generally informed of developments or initiatives which may have an impact on the relevant CD Standard Specifications.

4. Procurement from other Licensed Manufacturers

- 4.1 The rights granted to Licensee pursuant to Clause 2 and the right to use the information pursuant to Clause 3, include the right for Licensee to have Licensed Products made for it by third party manufacturers, duly licensed by Philips under an agreement similar to this

Agreement, provided that Licensee will properly identify such third party manufacturer in the royalty reporting forms to be submitted to Philips hereunder, together with the quantities of Licensed Products so purchased.

Conversely, Licensee shall refrain from purchasing or selling CD-Discs manufactured by any third party not licensed by Philips, where such purchase or sale would constitute an act of infringement of any of the Licensed Patents.

5. Royalties, Reports and Payments

- 5.1 In consideration of the rights granted by Philips and the information to be provided by Philips hereunder, Licensee shall, upon execution of this Agreement, make a non-refundable, non-recoupable payment of US\$ 25,000 (twenty-five thousand US Dollars) to Philips.
- 5.2 In further consideration of the rights granted hereunder by Philips to Licensee, Licensee shall pay to Philips a royalty for each CD-Disc sold or otherwise disposed of by Licensee, any of Licensee's Associated Companies or an agent of Licensee, in any country where at least one of the Licensed Patents essential to the type(s) of CD-Discs as selected by Licensee pursuant to the Options of Clause 1.22 exists.

These royalties shall amount to:

- (a) US\$ 0.03 (three US Dollar cents) for each CD-Audio Disc with an outer diameter greater than 90 mm, if applicable, containing CD Text information;
- (b) US\$ 0.02 (two US Dollar cents) for each CD-Audio Disc with an outer diameter smaller than 90 mm, if applicable, containing CD Text information;
- (c) US\$ 0.027 (two point seven US Dollar cents) for each CD-Audio Maxi-Single, if applicable, containing CD Text information;
- (d) US\$ 0.03 (three US Dollar cents) for each CD-ROM Disc (irrespective of the type) with an outer diameter greater than 90 mm;
- (e) US\$ 0.02 (two US Dollar cents) for each CD-ROM Disc (irrespective of the type) with an outer diameter smaller than 90 mm;
- (f) US\$ 0.045 (four and a half US Dollar cents) for each CD Extra Disc (irrespective of the type) with an outer diameter greater than 90 mm, if applicable, containing CD Text information; and
- (g) US\$ 0.03 (three US Dollar cents) for each CD Extra Disc (irrespective of the type) with an outer diameter smaller than 90 mm, if applicable, containing CD Text information,

said rates hereinafter referred to as "Standard Rates".

With respect to CD-Discs sold on or after July 1, 2002, provided that:

- a) Licensee is in full compliance with its obligations under this Agreement; and
- b) Licensee has submitted an audit statement by its external auditors, who shall be certified public auditors as specified in the Audit Guidelines attached hereto as Annex B2, confirming that the quarterly royalty statements as submitted by Licensee to